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Economics and Economists in Contemporary Chile

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TOWARDS A CULTURAL PSYCHOLOGY OF SCIENCE

ECONOMICS AND ECONOMISTS IN CONTEMPORARY CHILE

BY
DAVID CARRÉ

DISSERTATION SUBMITTED 2017

AALBORG UNIVERSITY
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ENGLISH SUMMARY

Along history, the advances of science and technology have had a direct impact in how we organize our lives. How much we live, how we work, how we move around, how we communicate to each other, it is all largely influenced by the current status of scientific knowledge and its technological applications. In spite of playing such an important role, until the second half of the 20th century we understood very little about the making of scientific knowledge beyond the epistemological debate around it, i.e. the philosophy of science. Since the 1960s, the science and technology studies (STS) have inquired the nature and practices of science as a socially-determined phenomenon, thus making sociology, anthropology, and history the main disciplines for the field. On the other hand, despite frustrated efforts, psychology has so far not taken part in the social studies of science, leaving the personal understanding of the scientist as a largely neglected element. This status should not be surprising given the cognitive and individualistic focus that existing studies on psychology of science have had, something that makes difficult any dialogue with more socially oriented disciplines. The present thesis proposes to bridge this gap through a cultural psychology of science, which addresses scientific activity based in two tenets: (a) the meaning-making of personal, psychological experiences is something inherently connected, but not limited, to culturally-available meanings; (b) scientists create scientific knowledge by articulating culturally available theories, methodologies, and data not in a neutral way, but rather driven by a personal sense of purpose for creating the best possible knowledge according to their own experiences and commitments. Therefore, this approach makes possible to understand the personal dimension (e.g., interests, motivations, commitments) involved in the making of science without disconnecting it from collective elements, like scientific communities, institutions, and socio-historical backgrounds. At the same it reflects the purposeful character of scientific activity for those who actually produce that knowledge.

In the present thesis, this proposed cultural psychological approach is used to explore a very concrete case: the rise of economics and economists in contemporary Chile. Following a particular socio-political scenario in the 1970's, economists–initially linked to the Chicago school of economics–turned into key social actors, holding an influence that spanned way beyond strictly economic issues. Thus, as bearers of economics knowledge, economists have been the authoritative source to settle debates on educational policy, healthcare, labor relations, among many other areas. Existing literature on this phenomenon, mostly historical and sociological, have focused in documenting the extent of this influence and also in calling into question the socio-political conditions that have made possible this rise of the economists in Chile. By doing so, little attention has been paid to the persons behind the seemingly unitary term 'economist'. In order to address this shortcoming, the present thesis provides an updated, grounded account of the diversity of views and experiences collapsed under this label, based on a thematic analysis of in-depth interviews with current graduates, research assistants, doctoral students, and

professors on economics in Chile.

While most of the economists interviewed shared the diagnosis made by social science scholars on the massive influence of the discipline, their perspectives on this topic varied greatly—from criticism to support—, and were based on very different rationales—from political to epistemological. Moreover, the analysis of economists' personal experiences and perspectives provided novel insight into a range of topics related to the creation, circulation and use of economics knowledge in Chile that have been mostly neglected. It was thus possible to observe how concrete biographical experiences, personal motivations, and views on the discipline (regarding its methodology, limitations, and normative orientations) all were interwoven at the moment of defining participants' position as economists within the Chilean economics community. Therefore, it seems no longer reasonable to assume that every economist in Chile plainly submits to the social norms and procedures that organize this scientific community. On the contrary, there was a consistent involvement of the participants, which drove their personal work as economists and that could not be reduced—yet not disconnected either—to socio-cultural elements.

In sum, the present thesis looks to complement existing social studies of science with a cultural psychological perspective, which is sensitive to the personal nature of the scientific activity but also to the cultural conditions in which scientific knowledge is constructed, without subsuming any of these dimensions into the other. At the same time, it offers a novel perspective on the notorious role that economists have had in contemporary Chilean society, a topic that has been largely addressed as social and institutional.

DANSK RESUME

Igennem historien har videnskabelige og teknologiske fremskridt haft direkte indvirkning på, hvordan vi organiserer vores liv. Hvordan vi lever, hvordan vi arbejder, hvordan vi flytter os rundt og hvordan vi kommunikerer med hinanden er alt sammen påvirket af det nuværende videnskabelige niveau og dets teknologiske anvendelsesmuligheder. Til trods for at spille så vigtig en rolle, så forstod vi indtil den sidste halvdel af det 20. århundrede kun lidt om, hvordan videnskab bliver til ud over den epistemologiske debat som omgav den, dvs. videnskabsteori. Siden 1960'erne har *Science and Technology Studies* (STS) undersøgt videnskaben som en socialt betinget fænomen, hvilket derved gjorde sociologi, antropologi og historie til feltets hoveddiscipliner. På den anden side, og det på trods af en frustrerende indsats, så har psykologien endnu ikke taget del i det sociale undersøgelse af videnskab. Dette har efterladt den personlige forståelse af den videnskabelige person som et overset element. Dette skulle ikke være overraskende pga. det kognitive og individualistiske fokus, som eksisterende psykologiske studier har haft. Denne afhandling forsøger at bygge bro over denne kløft gennem en kultur-psykologisk tilgang til videnskab, hvilket bliver adresseret i følgende to teser: (a) at meningsskabelse af personlige, psykologiske oplevelser hænger sammen med, men er ikke begrænset til, de kulturelt tilgængelige betydninger; (b) videnskabsfolk skaber videnskabelig viden ved at artikulere kulturelt tilgængelige teorier, metodologier og data på en måde som ikke er neutral, men drevet af en personlig målbevidsthed omkring, hvordan den bedst mulige viden skabes ifølge deres egne erfaringer og forpligtelser. Derfor bliver det gennem indeværende tilgang muligt at forstå den personlige dimension (fx interesser, motivation og forpligtelser) involveret i skabelsen af viden uden derved at løsrive det fra kollektive elementer såsom videnskabelige fællesskaber, institutioner og social-historisk baggrund. Samtidig gengiver det den formålsrettede karakter bag den videnskabelige aktivitet og dem som faktisk producerer den viden.

I indeværende afhandling anvendes den kultur psykologiske tilgang til at undersøge en meget konkret sag: stigningen af økonomi og økonomer i det nuværende Chile. Efter et særligt socio-politisk scenarie i 1970'erne blev økonomer, som til at begynde med var forbundet til *Chicago School of Economics*, gjort til nøgle aktører, hvilket bevirkede at deres indflydelse strakte sig langt ud over strengt økonomiske anliggender. Således, som bærere af økonomisk viden, har økonomer siden været den autoritære kilde i forhold til at afgøre debatter inden for uddannelsespolitik, sundhed, arbejdsforhold, samt mange andre områder. Eksisterende litteratur om fænomenet, mest historisk og sociologisk, har fokuseret på at dokumentere omfanget af den indflydelse og stillet spørgsmål ved de socio-politiske betingelser, som har muliggjort denne voksende skare af økonomer i Chile. Grundet dette har man kun i ringe grad givet opmærksomhed til de personer bag dette begreb. For at adressere denne mangel, vil den indeværende afhandling give en opdateret og mere forankret beskrivelse af de diverse synspunkter og oplevelser, som er samlet under etiketten 'økonom'. Dette er vil være baseret på dybdegående interview med

nuværende studerende, forskningsassistenter, ph.d-stipendiater og professorer i økonomi i Chile.

Mens de fleste af de interviewede økonomer var enige med den diagnose, som er blevet stillet af de socialvidenskabelige forskere angående den massive indflydelse, som den økonomiske disciplin har haft, så varierede deres perspektiv på emnet stadig – fra kritik til støtte –, hvilket også var baseret på flere forskellige rationaler – fra politiske til epistemologiske. Dertil gav analysen af økonomernes personlige erfaringer og perspektiv indsigt i en bred vifte af emner relateret til skabelsen, cirkulationen og brugen af økonomisk viden i Chile, som for det meste har været negligeret. Det var således muligt at observere hvordan biografiske erfaringer, personlige motiver og synspunkter på disciplinen (omhandlende dens metodologi, begrænsninger og normative orientering) alle var sammenvævet og i det øjeblik udgjorde deltagernes position som økonomer inden for det chilenske økonomiske fællesskab. Derfor virker det ikke længere rimeligt at antage at enhver økonom i Chile underkaster sig de normer og procedurer, som er medvirker til at organisere dette videnskabelige fællesskab. Helt modsat dette, sås der et konsistent engagement blandt deltagerne, der drev deres eget arbejde som økonomer, som ikke kunne reduceres til – eller adskilles fra – de socio-kulturelle elementer.

Opsummerende: Indeværende afhandling søger at komplementere eksisterende studie foretaget inden for socialvidenskaben med et kultur psykologisk perspektiv, som er opmærksomt på den personlige dimension af videnskabelige aktiviteter, men også over for de kulturelle betingelser under hvilke viden konstrueres, dog uden at reducere nogen af disse dimensioner til en anden. Samtidig tilbyder den et nyt perspektiv på økonomernes berygtede rolle i det nuværende Chile – et emne som mest har været adresseret som socialt eller institutionelt.

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I thought that it would be easier to write these words. Yet it is very tough to properly express my gratitude to all the people that, in different forms, have made possible for me to finish this project and write these very words.

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And I leave this last paragraph to Antonella, my partner in this whole crazy adventure. While the exact number of reasons for being thankful to you does no fit in this or in any page, I just want to say thanks for being there, as my true partner, every single day of the road that led me to write these words. If this whole project was possible, it is mainly because of your support.

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CHAPTER 1. MAKING SCIENCE HUMAN, MAKING SENSE OF SCIENCE

The question for knowledge, as few others, is a timeless question. Since classical times we have wondered about our capacity to know things, certain things. In a certain way, as human beings we have insistently tried to know more about what, how, and why we know. Since the times of the ancient Greece, however, there has been a permanent suspicion about our everyday, practical knowledge, which has led us to inquire this issue in further depth, beyond our first impressions. Interestingly, for centuries these inquiries were focused on high epistemological and philosophical debates, guided by the most eminent philosophers of the Classical, Medieval, and Modern eras of Western thinking. This was the main trend until the 20th century, which represented a dramatic shift in how the issue of knowledge was addressed. First and foremost, the questions about knowledge definitively turned into the inquiry of *science*: what is and what is not science; how science needs to be conducted in order to yield true results. This turn represented the consolidation of the so-called 'scientific revolution' (Shapin, 1996) that began with Copernicus, and ultimately placed the scientific method as the ultimate source of true knowledge. This change, however, was not circumscribed only to the way in which scholars approached this issue; the relation between science and society also changed dramatically. Maybe the most clear example of how central scientists became in the ordinary life of the 20th century is the 'Doomsday Clock'. Periodically updated by the *Bulletin of Atomic Scientists*, this metaphorical clock represented how close, according to American atomic scientists, was the world to a nuclear all-out war during the Cold War. In other words, if the world was going to end, this was going to be announced by scientists. This level of influence and presence in society was probably one of the elements that moved scholars since the 1960s to shift from a purely rational understanding of science into historical and social perspectives of this activity. Thus, the image of scientists as meditative scholars working in an 'ivory tower', completely disconnected from the mundane world, was definitely shattered.

While this renovated approach to science acknowledged the tight connection between scientists and the social environments in which they live, it kept an old assumption of the philosophical approaches: the neutral role of the person working as scientist. In this sense, whereas for philosophical views the scientist is a purely rational individual, for social and historical approaches the knowledge created by individual scientists is ultimately determined by collective elements. The present thesis aims to challenge this assumption by showing that scientists act as purpose-oriented, motivated persons. Far from just an intellectual exploration, this proposal looks to provide a more grounded perspective of scientific activity given the crucial role that science has for contemporary societies. For this very reason, this thesis analyzes the former topic through the case of economists in Chile during the last five decades, which have largely transcended the borders of academia.

In the following, I introduce these two topics by describing my own path of making sense about them. By doing so, I look to set my position about these topics as clear as possible. Moreover, I consider essential to make clear that these issues have a personal and existential value that go beyond intellectual curiosity. Hence, I am certain that the spirit of this project and its relevance will become transparent to the reader. Finally, I close this introductory chapter with a summary of the structure of this thesis.

WHY SCIENCE? FROM EPISTEMOLOGY TO KNOWING PERSONS

In the spring semester of 2006, midway through my undergraduate studies in psychology, I enrolled on a seminar with a strange but interesting title, *Epistemology*, which seemed related to my long-standing interests in philosophy. After that semester, my views on knowledge and science were forever and completely transformed. If such change happened, it was because of a thrilling intellectual trip that went from Frege's (1893/1964) logicist perspective on language to Carnap's (1934/1995) physicalist project; from Ayer's (1936) verificationism to Popper's (1934/1959) falsificationism; from Quine's (1951) underdetermination of theory by evidence to Feyerabend's (1975) methodological anarchism; from Kuhn's (1962) scientific revolutions to Lakatos' (1968) research programmes. By learning about the intellectual transitions that shaped the 20th century philosophy of science, I realized that what is understood as valid knowledge, and what science is, have been in constant transformation along history. Therefore, the question of how to define science and objective knowledge has not been answered in a single, unitary and consensual way. Ultimately, against (my) received wisdom, even the notion of 'truth' was open for debate.

Along this major change of perspective about science and knowledge, however, there also came a strong personal disappointment with the core of these philosophical views. Ultimately, I noted that all these views did not account for the affective, motivated side of creating knowledge and making science. In other words, I perceived that the philosophy of science was trying to address, in the most abstract possible way, how science *should* be done in order to produce objective knowledge—even if that very notion has been in permanent transformation (Daston & Gallison, 2010). In doing so, I felt that the whole psychological dimension of knowledge-making and scientific activity was missing. Thus, there was no consideration about why, in the first place, scientists devote themselves to such a complicated activity, or how is their everyday work behind the neat papers and congress presentations they make, and also what leads them to pick a specific topic within a discipline. As a psychologist–in–training, these questions seemed—and they certainly still do—essential to have a proper understanding of the topic at stake. How was I supposed to grasp what science and knowledge construction is about just by knowing the formal rules of it? When I expressed this concern, the professor reading the seminar confirmed my apprehension quite directly: anything said by

these philosophical accounts related to actual persons, if scientists were mentioned it was just as the epistemic agents required to produce knowledge. Thus, I realized that the former elements were not just 'missing'; they were never intended to be addressed because they were seen as irrelevant to scientific knowledge. Therefore, while I perfectly understood the relevance of these philosophical accounts to grasp the epistemic nature of scientific activity, I also realized about its limitations *in relation to my own interests*, which moved me to begin the research project that culminates in this thesis. Thus, if I wanted to further understand what I perceived as the 'human' side of knowledge and science—as opposed to the epistemic, logic angle—, I needed to look elsewhere for answers. Hence, the present dissertation stems from this long standing concern, and it represents the best possible answers I could find during the last ten years.

The first, and certainly illuminating, alternatives that I found to the philosophy of science were the works of Latour & Woolgar (1979), Knorr-Cetina (1981), and Shapin (1994). Through them I realized that, along the philosophy of science, exists a whole, thriving field of social studies of science. By combining historical, anthropological, and sociological perspectives, these studies offered a critical perspective of scientific activity that ultimately led me to question whether scientific knowledge could be objective—in the sense of being indubitable true—or not. The arguments offered by them were certainly compelling: the influence of private and governmental funding over research programmes; the decisive role of micro-politics within scientific institutions for deciding which projects are supported; the weight of scientific communities for silencing dissenting views; the uses of scientific rhetoric to influence social debates; all of them portrayed a critical view of science that made the philosophical perspective of science look like as nothing more than a mirage. This critical view, however, offered a much more realistic approach to the construction of scientific knowledge. Thus, these social studies were not prescribing how science *should* be done but critically describing how it is *actually* done, by real scientific communities, in concrete social and historical environments.

While this social perspective was much more devoted to understand the actual ways doing of science, I soon noticed that, for this approach, scientific knowledge is *only* determined by social elements. In this sense, power relations, competition for funding, the social influence of ideas, and other collective level elements are assumed to be *the* constitutive elements of scientific knowledge (e.g., Shapin, 1995). Therefore, any individual, personal aspect is either subsumed within collective elements, or plainly neglected (e.g., Shapin, 2012). Hence, in these social studies of science there was still missing the central element of my interest as a psychologist: the person behind scientific activity, or the individual scientist creating knowledge within a scientific community. Just as with the case of the philosophy of science, this sociological understanding of science did not fit with my interest as a psychologist. This mismatch, however, did not imply that I just dismissed social studies of science. If anything, these works made me realize that any proper understanding of scientific activity needs to be sensitive to social and cultural elements, which are an integral part of the phenomenon. This new insight added a

layer a complexity to my own view: the personal dimension of science could not be opposed to the social; it should be connected to it.

Looking for literature that specifically addressed the personal aspect of scientific activity and knowledge creation, however, proved much more elusive than finding philosophical or social approaches to this topic. Along the way I found inspiring ideas in Schütz's (1967) phenomenological approach to the life-world, or in Goodwin's (1994) idea of professional vision. Yet they seemed too broad, too general for properly addressing the knowledge construction process involved in scientific activity. Ultimately, it was Valsiner's (2012) *The Guided Science* that connected all the former dots. While this book presents a social history of psychology, I saw in it a perspective that was radically different from what I had read before: while there is tight connection between the ideas in psychology that have dominated the discipline and particular socio-historical contexts, there have also been several scholars who have pushed for ideas *against* that disciplinary consensus. As Valsiner (2012) shows, the latter works have probably brought much more innovation to the discipline than the former. Thus, in these ideas I perceived an approach that was fully aware of the influence of social and cultural elements, yet it did not collapse the personal contribution of scientists within these collective trends. For the first time, I saw in here a way of combining a person-centered, psychological perspective with a socio-cultural one: cultural psychology. Moreover, as Valsiner's (2012) book made clear, this approach could address the particularities of scientific activity. Based on these early intuitions, I started the present doctoral research project.

Interestingly, it was only after starting my doctoral project that I came to know about the existence of a sub-discipline explicitly devoted to study scientific activity from a psychological perspective: the psychology of science (Feist & Gorman, 2013). Although at the moment I blamed myself for overlooking such an obvious literature, I soon realized why—despite intensively looking for these works—I could not find them before. As Feist (2006) describes, the psychology of science has been trying for four decades to establish itself as a full-fledged sub-discipline within psychology, but it has not succeeded yet. Beyond this disciplinary element, however, my excitement for finding these studies diluted pretty soon. This was due to the fact that these psychological studies of science presented an individualistic perspective of the scientists, more focused in cognitive elements or personality traits. While this certainly addressed the personal dimension of scientific activity, it did it in a way in which this dimension was reduced to a number of quantifiable psychological variables. In other words, it was traditional cognitive and personality psychology applied into scientists, thus carrying over a reductionist approach that I did not consider fit for the complexities of scientific activity. In doing so, the whole social and cultural dimensions of scientific activity were also vanished—only with few exceptions (e.g., Osbeck, Nersessian, Malone, & Newstetter, 2011)—, an omission that, after learning about social studies of science and cultural psychology, was simply impossible to overcome. Hence, even though I ultimately found a psychological approach to scientific activity, it was one that simply did not make

justice neither to the personal aspect of scientific activity nor to its collective dimension.

Thus, I realized that a theoretical synthesis of my own was required in order to fully address what I perceived was the key missing point in the existing literature: how scientists—as a persons with interests, motivations, and commitments—shape their own scientific work, as part of broader scientific communities, and as members of particular societies. In other words, how to explore the ways in which scientific knowledge is crafted by the persons producing it, while acknowledging that scientific activity is an effort for producing objective knowledge, which is done following social, contingent procedures established by a disciplinary community. Ultimately, this is the central question of this dissertation. The theoretical answer I propose to this question is a *cultural psychology of science*, which I fully elaborate in Chapter 4. In brief, this view synthetizes the general psychological principles of cultural psychology (Valsiner, 2014) with the theory of personal knowledge (Polanyi, 1962). Thus, the proposed theoretical perspective starts from the assumption that the person is constructively making sense of his or her social and cultural environment, through the active internalization and externalization of cultural meanings. This general framework is combined with personal knowledge theory, which proposes that the construction of scientific knowledge is driven by the personal commitments of the scientist, among which is creating objective knowledge based on—what is perceived as—the best concepts, methodologies, and data available in his scientific community.

The concepts and theories presented thus far are more systematically organized, in the form of a literature review, in Chapter 4. However, it was essential for me to present how I have related to them, in order to be transparent about how I arrived to the conclusions presented in the following chapters. I am aware that this kind of personal disclosure is not common among psychologists—although it is a standard practice for other disciplines in the humanities and social sciences (cf. Ingold, 2014). This clarification, however, it is also an effort to show—through my own experience as researcher—the importance of attending to personal elements and motivations in order to fully understand the scope of a research project. In my particular case, for instance, how my training as a psychologist has largely shaped my approach to scientific activity; or how my early exposition to social studies of science moved me to look for a non-individualistic approach within psychology. Moreover, as it is described in the next sub-section, my personal connection to the case of economists in Chile also makes clear why I focus on this topic: my concern that the massive influence of economists restricts the citizen participation in the social debate about the country. When doing this, I do not intend to present a comprehensive historical contextualization of Chile during the last 50 years; Chapter 3 is written precisely to cover that aspect thoroughly.

CHILE, LAND OF ECONOMISTS

My connection to Chile and its economists is, first and foremost, biographical: I was born and raised in Chile. While I was born near the end of the 1973-1990 dictatorship that brought a select group of economists—the so-called *Chicago Boys* (Valdés, 1995)—to the forefront of the national debate, I grew up during the 1990s, a decade of political transition but continuity in the influential role of economists. Thus, I only became familiar with the deep, neoliberal social and economic reforms that the dictatorial regime implemented (Gárate, 2012) mostly through narratives coming from my family, and then on my own through historical documents and accounts.

Growing up during the 1990s in Santiago de Chile, as the youngest son of an upper middle-class, single-income family, I learned something about Chilean society very quickly: without a responsible management of the family income, it would not be possible to receive good-quality education, healthcare, and housing. Even though I was a child, I noted how this message came to me loud and clear through newspapers, TV news, and family conversations. Interestingly, I noted that this same principle was somehow reproduced by the national economy: if the country spent more than necessary, the economic success obtained after much struggle would be gone. While I did not understand much about those struggles, I did get that the responsible management of the economy, i.e. keep it growing as much as possible, was essential for the progress of the country as a whole. Moreover, I learned through my exposure to mass media that the most capable people to achieve the former were the economists—and nobody else. As a consequence of this, I assumed that it was natural for economists to have a say about any possible topic—from education to healthcare—: it was crucial that any policy decision did not jeopardize the growth of the economy. The fact that the economic situation of my family improved along the years, just as the national economy did, was not helpful for having any doubts about this narrative. In retrospective, it was not until much late that I questioned the idea that economic growth was the keystone of national progress.

Not surprisingly, when I was close to graduate from high-school one of my top two options for college was economics. While I ended up choosing psychology, I was fully aware of the prestige and social influence that becoming an economist could give me. In fact, I perceived among my high-school professors a certain disappointment that I decided to follow ‘just a program in humanities’ instead of a formal social science that combined both humanistic and mathematic approaches. In this very concrete sense, the social role of economists in Chile was not a distant topic for me. Its importance was clear enough to make me, as a 17 years-old teenager, to ponder whether to become an economist or not.

After this point in time, several elements started to cast doubts on me about the monolithic logic of economic growth and the uncontested influence of economists.

On the one hand, during my college years, specifically in 2006, there was a major strike of high-school students. Having received private education during my whole school years, the struggles of public education were distant problems that I did not fully understand. After the 2006 strike, however, I realized that the message I received as a kid was pretty accurate: without a high-income it was not possible to secure a good education. While that seemed a matter of fact as a child, as a young adult I could see the grim consequences of such a system; and it did not seem neither natural nor acceptable any longer for me. On the other hand, alternative voices in politics and media began to raise questions about why, after 15 years of steady economic growth and a dramatic increase of average income per capita, there had been so little advances in human development indexes. In other words, if the economy kept growing, then why did public-provided social services remained so underdeveloped and underfunded?

To a certain extent, this was the beginning of a national debate on why the progress of the country has benefited only a little section of the population. The answer given by the political establishment, backed by several economists, was not so innovative: in order to make this progress reach everybody more economic growth was needed. Regrettably, the latter was not open to any further discussion, since the opinions of economists were not presented as 'mere personal opinions' but as expert, scientific opinions on the matter. While I did not doubt about the intention of economists for providing accurate advice, it surprised me how all these expert opinions converged in a similar view of the society. Through this experience I started to wonder whether it was really the case that all economic ideas and evidence supported the logic of economic growth applied in Chile, or if it was the other way around: that economists looked for the ideas and evidence that supported the status quo in Chilean society. For the first time, I saw a vivid example of how the personal elements could be interwoven into the scientific work.

Beyond this, the untenability of this economy-centric approach became fully evident to me through the massive grassroots movements that erupted since 2011. While, as in 2006, these movements began as a request for better public education, this time they soon turned into a critique of the social model implemented during the dictatorship as a whole. In doing so, the question of the protesters was pretty simple: why do education, healthcare, utilities, etc. need to be organized around an economic, for-profit rationality if that just deepens the existent social inequalities. Through this questioning I realized about the expanse of economic rationality in Chile, as the ideas of a single scientific discipline organized most of the social areas in the country. Furthermore, this experience made me realize that—contrary to my college training in epistemology—science is not necessarily trapped into the so-called ivory tower. Quite the contrary, since 1973, economics was not only in direct contact with the Chilean society, but it actually imprinted a deep mark in how that society was organized and regulated.

Therefore, when I started this research project I was quite critical about the role of economists in Chile. I perceived that their influence was certainly overstretched, and

through it many other perspectives were moved out of the focus. At the same time, I perceived that many of the views presented as strictly scientific were also connected to social perspectives, which were not explicitly stated. Hence, the case of economists in Chile appeared as an example of both the tight connection between science and society, and also of the participation of personal elements in the construction of scientific knowledge. This is how the two main issues addressed by this thesis converged in a single research project.

STRUCTURE OF THE THESIS

This thesis is structured in 8 chapters, which represent the multiple angles from which I address the main research question of this thesis: how economists in Chile—as a persons with interests, motivations, and commitments—shape their own scientific work, as part of a local and global scientific community, and as members of the Chilean society. The present chapter is the general introduction to this question, in which I have showed how my position about this question, as individual and researcher, has been constructed.

The next chapter, Chapter 2, summarizes the different aspects of the research methodology used in this thesis. Beyond describing it, this chapter provides justification to the methodological decisions made along the research process regarding study design, recruitment of participants, and strategies of data production analysis.

Chapter 3 is the first of the five manuscripts that compose the core of this thesis. In particular, this chapter presents a systematic historical overview of the main social processes that Chile has experienced in the last five decades. Through this historical overview, the expanse of economists' influence becomes crystal-clear.

On a different note, Chapter 4 contains the theoretical backbone of this thesis. In the first half, this chapter presents a literature review of the philosophy of science, the social studies of science, and the incipient psychology of science. The second half is devoted to elaborate the theoretical synthesis of cultural psychology and personal knowledge theory that structures this whole thesis: the cultural psychology of science.

Chapter 5, on the other hand, provides a general perspective of the results generated from the empirical work conducted. Thus, it presents a comprehensive thematic analysis that provides a panoramic perspective of the multiple views and experiences expressed by the economists interviewed. It closes with the analysis of a single case, which shows in a concrete case how personal elements weave together the different aspects involved in working as an economist in Chile.

Likewise, Chapter 6 contains an extended presentation of a case study. Through this analysis it is possible to observe how a participant articulates together two aspects

that are assumed to be contradictory for economists: an econometric and a political orientation. By doing so, this case shows how constructive could scientists be at the moment of establishing their position within the alternatives offered by the scientific community.

Chapter 7 presents a very specific discussion around a topic underlying the two previous chapters, namely whether it is possible—and reasonable—to establish a strict separation between the 'activist' and the 'scientific' positions. In order to do so, an analysis of what exactly means these two positions is conducted. Following this, the usefulness of the distinction is analyzed for the particular case of researchers in the humanities and social sciences.

Finally, Chapter 8 presents the main conclusions of this thesis. It is composed, first, by an integrative summary of Chapter 3 to 7, which is followed by the discussion of two potential critiques that these ideas and findings could receive. After this, the underlying risk of conducting critical studies of science is addressed. The final remarks of this thesis discuss its limitations and future directions.

CHAPTER 2. METHODOLOGY: STUDY DESIGN, METHODS AND FIELDWORK EXPERIENCES

This chapter summarizes the methodological guidelines that guided the empirical implementation of this research project. It also describes and justifies the methodological decisions adopted in relation to the recruitment of participants, the strategies of data production, and the analytic framework. While most of this information is described in Chapters 5 and 6, here it is presented in a systematic and more detailed way.

STUDY DESIGN

The present study adopted a qualitative research methodology and an exploratory, descriptive design in order to address its main research question: how economists in Chile—as a persons with interests, motivations, and commitments—shape their own scientific work, as part of a local and global scientific community, and as members of the Chilean society.

The election of conducting the empirical research under a qualitative methodology follows a central interest of the present work, namely addressing the personal experiences and meanings of economists in Chile. As Denzin and Lincoln (2005) note, qualitative research aims to "*study things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings [that] people bring*" (p. 3). More specifically, qualitative research looks to understand human actions from the subjective perspective of the acting persons (Cook & Reichardt, 1986), which is the exact aim of the present work. Moreover, this methodological approach made possible to capture the commonalities (Kleining, 1982) but also the diversity existing in these personal perspectives. As I further elaborate in Chapter 4, given the existence of a widespread portrayal of economists in Chile as 'almighty' social actors (Heredia, 2011), it was especially important for the chosen methodological approach to be able to explore the potential diversity of experiences and meanings, and thus offer an alternative to this blanket characterization. Finally, the results and conclusions yielded by previous studies on this topic that adopted a quantitative methodology (e.g., Correa-Mautz, 2014), made clear that a qualitative approach was required to grasp the richness of the topic.

Moreover, most of the previous research conducted about economists in Chile has had a historical or sociological focus (e.g., Ossandón, 2011). Thus, there was no external reference that helped in orienting the study of personal perspectives and meanings of economists. Therefore, the exploratory and descriptive nature of qualitative research (Krause, 1995) was essential to progressively address the

guiding research question through the research process. Furthermore, the flexibility of the qualitative approach resulted crucial to adapt the sampling and data production procedures in response to new elements that emerged along the research process. Thus, the fact that the object of study in qualitative research is always preliminary (Kleining, 1982), certainly assisted in incorporating the feedback provided by participants to adjust methodological decisions that were based in the pre-assumptions of the researcher.

Regarding the latter, it is important to include a reflection on my position as a researcher. As Krause (1995) notes, the main instrument of qualitative research is the researcher him/herself, and thus it is essential to have a *self-reflective approach*. In this sense, as a researcher, I did not consider myself as a distant observer of the studied phenomenon, which went to meet informants and aseptically 'collect' information that they had. On the contrary, as I made explicit in Chapter 1, I had a series of pre-conceptions and expectations about my participants that certainly shaped my initial approach to them and to this research project in general. Interestingly, as I kep meeting and talking with more and more economists I started to realize about a diversity of views and opinions that simply did not fit in my initial preconceptions. In this sense, I was especially surprised to find self-criticism regarding several practices of the discipline. Finally, as I describe in further detail in the Interviewing sub-section of this chapter, being a young PhD researcher elicited an unexpected connection for many of the participants. If anything, all these elements made clear that—either I looked for it or not—I was directly involved in the co-construction of data with the participants.

RECRUITING INFORMANTS

The process of recruiting participants for this study was progressive, taking different directions following further readings on the topic, and also following the directions and suggestions that participants made. Accordingly, this process was guided by two complementary sampling strategies were used: purposive (Luborsky & Rubinstein, 1995) and snowball sampling (Noy, 2008). The first strategy allowed me to purposefully look for participants that represented different age groups, genders, and institutions. Given the aim for exploring the diversity of views and experiences of economists in Chile, this sampling approach was required to cover the different positions that economists might assume in Chile. The second strategy, on the other hand, allowed me to follow the contacts that participants constantly suggested to me.

The process of contacting participants was done entirely through e-mail, which were personally directed to the potential participant. In these e-mails, a small description of the research project and the research was provided, concluding with a request to meet for conducting a 45 to 60 minutes interview. Two minimum criteria remained stable along the whole process of contacting participants: having a degree in economics, and being based—either for work or studies—in Chile. Using these

basic criteria, I started contacting young research assistants and PhD students, under the assumption that they would be more open for collaborating than senior economists. The former was in fact the case: these early participants proved to be crucial informants for both narrowing down the research question and to have a better understanding of the landscape of economics in Chile. In this sense, through their input—and complementary readings—I learned about the relevance of contacting economists not only based in universities or research centers, but also in government agencies and think tanks. While I initially overlooked the latter—assuming their lack of academic focus—, I soon realized that they were essential to understand the circulation and social use of economic knowledge in Chile. Thus, I started to contact junior researchers and analysts working at these institutions. Through the interviews I had with them, I learned about the different positions from which economists work in Chile, creating very asymmetrical relations among those based in the institution in which they work. Finally, using the contacts provided by junior researchers, I was able to contact university professors and senior-level think tank researchers. Naturally, along this process there were many informants that never replied back to the initial contact, but in general the reception and openness of this group of participants was remarkable. More about this is detailed in the sub-section 'Interviewing'.

Through this process, a total of 25 economists were interviewed for this study. There were 17 male and 8 female, ranging from 25 to 70 years of age, who—at the moment of being interviewed—worked at 4 different think tanks, 3 universities, 3 government agencies, and 2 research centers. The case-by-case description of each participant is detailed in Table 1.

Table 1. *Participants' characterization*

Participant Code [a]	Characteristics				
	Gender	*Age*	*Degree*	*Position*	*Institution*
A	Female	25-35	MSc	Jr. Economic Analyst	Gov. Agency 1
B	Male	25-35	PhD (S)	Student	University 1
C	Female	25-35	PhD (S)	Student	University 2
D	Male	25-35	PhD (S)	Student	University 2
E	Male	25-35	MSc	Research Assistant	Research Center 1
F	Male	25-35	MSc	Research Assistant	Research Center 1
G	Female	25-35	MSc	Research Assistant	Research Center 1
H	Male	45+	PhD	Professor	University 3
I	Female	25-35	MSc	Researcher	Think Tank 1
J	Male	25-35	MSc	Researcher	Think Tank 1
K	Female	25-35	MSc	Researcher	Think Tank 2
L	Female	35-45	PhD	Professor	University 3
M	Male	25-35	Hon. BSc	Researcher	Think Tank 3

N	Male	25-35	MSc	Research Manager	Research Center 1
O	Male	45+	PhD	Professor	University 1
P	Male	35-45	Hon. BSc	Economic Analyst	Gov. Agency 2
Q	Male	35-45	Hon. BSc	Economic Analyst	Gov. Agency 3
R	Male	25-35	MSc	Researcher	Think Tank 2
S	Male	45+	PhD	Professor	University 1
T	Female	35-45	MSc	Senior Researcher	Think Tank 2
U	Male	25-35	MSc	Research Assistant	Research Center 2
V	Female	45+	PhD	Professor	University 2
W	Male	35-45	MSc	Senior Researcher	Think Tank 4
X	Male	45+	PhD	Professor	University 2
Y	Male	35-45	MSc	Research Manager	Think Tank 3

[a]: The code assigned to each participant only lists them alphabetically following the chronological order in which they were interviewed, and so it has no relation to the given names of the participants.

Regarding ethical considerations, as the foot of Table 1 specifies, the personal information of participants was anonymously handled through the research process. Moreover, no form of reward or compensation was offered or given following participation. This element is worth noting because it emphasizes the voluntary component of participation.

PRODUCING DATA: INTERVIEWS AND FIELDWORK

As noted above, as qualitative researcher I was tightly involved in the whole process of research. Therefore, the data used in this study was not 'collected' from the participants above described, but actually produced through the encounters I had with them. In this sense, while the recorded audio content of the interviews was the main source of information used, my experiences meeting these participants, and progressively getting into the world of economics in Chile, also was a relevant, more unspecifiable input for this study.

INTERVIEWING

As just noted, the main technique used for data production was interviewing the participants, based on a semi-structured script. This conversational technique, far from a procedure to 'extract' information that participants already have, was understood as an active, dynamic exchange of views and opinions on the topics addressed. Thus, they were conducted as 'inter-views' (Kvale and Brinkmann, 2009) rather than questioning sessions guided by the interviewer. Accordingly, following Alvesson's (2003) suggestions, the views and positions expressed by participants were consistently contrasted with opposed views expressed by other participants. This dialogical exercise was not intended to question the validity of

participants' views, but just to serve as a prompt for promoting further elaboration. Regarding the issue of 'validity', it is important to note that, following the inherently constructive nature of qualitative research, the meanings and positions expressed by participants were not assumed to represent a single, unitary truth; thus making any other alternative perspective 'false'. It was assumed that the accounts provided by participants were 'true' in the sense of being honest elaborations, intended to address the topics that emerged along the interviews.

In total, 27 interviews (participant A and F were interviewed twice given their availability) were conducted in person by the researcher. Their length ranged from 25 minutes to 2 hours, with a typical duration of 50 to 70 minutes. The interviews were primarily conducted at the workplace of the participants, with the exception of three interviews that took place in public places as per participants' request. The opportunity to visit participants' work environment provided me with experiences that certainly contributed in my understanding of the 'world' of economists and economics in Chile. In particular, these experiences gave me a physical grasp of a number of institutions that, based on my readings, initially seemed like abstract entities with a unitary character. On the contrary, the physical experience of visiting them made me realize how concrete and contingent they are.

The degree of structure varied from interview to interview, following the particularities of each interaction, yet a semi-structured script guided all of them. This script was initially constructed to explore the topics that were of interest to the research, but was subsequently refined based on the initial interviews; mostly eliminating issues that simply did not make sense to participants (e.g., why not do a PhD in Chile). Thus, the most used version of the script was organized to address the following themes: studies and career path; current position and expected projection; past and present interest in doing economics; historical and current role of economists in Chile; and personal experience working as an economist. Around these main five themes, several impromptu questions were made by the interviewer depending of the order in these themes were addressed. However, certain questions were recurrent to initiate the conversation ("Could you tell how you got to work here?") and to open topics not yet addressed ("After more than 10 years working as an economist, what changes do you perceive in yourself?"). These questions were presented in an open form in order to facilitate the elaboration of participants. Likewise, silence was used as a communicational resource to promote further elaboration and especially to avoid interrupting participants' answers.

Overall, the interview interactions were very fluent due to the openness of participants to talk *in extenso* about almost any topic that was brought to the conversation. Connected to this, they were patient and clear to explain any economic technical concept or methodology that I did not know at the moment of the interview. Likewise, as I progressively started to use more economic jargon in my questions and commentaries, I noted that participants reacted to this by using a more technical language to refer to the discipline and to the work of fellow

economists. Despite this, during the interviews I constantly felt as an outsider asking about things that, if I were an economist, should not be necessary to discuss.

EXPERIENCES AND CHALLENGES OF DOING FIELDWORK

The former element, in fact, is one of three experiences that I had while meeting and discussing with the participants. In particular, I consider these experiences as significant moments or perceptions that defined the way in which I conducted the data production process. Thus, the first of them is the experience of doing research about a scientific discipline to which I was—and still am—an outsider. This not only implied a considerable time familiarizing myself with technical terms (e.g., instrumental variable) and ordinary terms that were used in a very specific way (e.g., model), which were constantly used by participants to describe their work. It also involved learning about the 'rites of passage' that define the different career stages in which a researcher on economics is located (e.g., participating in the 'job market'). In spite of this very marginal immersion in the world of economists, even at the end of the last interview I was left with the impression that I only scratched the surface of what is it to be an economist in Chile; how it is actually done on an everyday basis. This observation should not be a surprise for any ethnographer, but it points to the challenges of understanding life-worlds that are different from one's own (Schütz, 1944).

The second experience was a very concrete exchange during the interview with participant J, who is a tenure-track professor and former head of department. When I introduce to him my research, I mention the possibility of conducting non-participatory observations in graduate seminars and research meetings at the university in which he worked. To this he immediately replied: "*you cannot make something like that [ethnography observations in meetings or seminars], you are crazy if you are planning to do that, I can tell you here and now that is not going to work, nobody will give you access to something like that, who gave you that idea?*" When I reply that this idea was based in a suggestion of an ethnography professor, he told me back: "*well, maybe he suggested that to you because in the US economists are different, but in Chile we are pretty insular, we do not like to share what we do, even less to somebody from another discipline*". Even though this was an isolated experience, it made me realize that—without having that explicit intention—the interview-based approach I chose fit with the expectations of my participants. Should I decided to take a more ethnographic approach, the data production process would have been much more difficult to conduct.

On an entirely different note, the third experience related to personal characteristics that I did not expect them to be significant but ended up being quite relevant for the interview interactions. The first of them was my age, which was pretty similar to most of the participants, i.e. in between 25 and 35 years. This generational aspect led several participants of this age group to express an unexpected closeness, which was made clear by the repeated use of slang and cultural references. Even though

this did not imply that participants suddenly addressed me as a close acquaintance, it led them to perceive that I could understand them better because of being of similar age. While this could have been the case, it became an unexpected resource to facilitate the interviews with participants of this age group. Similar to this, the fact of doing a PhD—even though it was not in economics—served as another factor that made participants perceive that 'I understood what they were saying'. Far from hindering more clear elaborations, I noted that this element made easier for participants to talk about their projects of starting doctoral studies, or about their present or past experiences as PhDs. Once again, this experience emphasized how much the researcher is involved in the data production, and even more so in the case of conversational techniques like interviews.

ANALYZING DATA: THEMES AND CASES

Since the process of analyzing the verbal content of the interviews conducted is thoroughly described in the Methodology section of Chapter 5, in the following only an essential summary is presented. First and foremost, the analysis of this material was performed following the analytic frame proposed by Wagoner (2009). In brief, this framework proposes to combine aggregate and single-case qualitative techniques of analysis in order to generate both panoramic and granular perspectives of the data. Thus, this approach offered both a general perspective of the common aspects of the views and experiences of economists, but also the necessary detail to analyze in further depth those cases that presented more richness and complexity.

For conducting the analysis at the aggregate level, the thematic analysis proposed by Braun and Clarke (2006) was chosen due to its flexibility and clearly established 8-step process. Therefore, the interview material was first transcribed using the software *ELAN* (version 4.9.4) and then content-coded and analyzed with the software *nVivo for Mac* (version 11). After this, an initial set of codes was created in order to start to detect common themes across the data set. Once these initial codes were created, tentative themes were organized and tested against the data. After this step, three major themes were defined and named: role of economists in Chile; defining economics; and economics as a personal activity. The results generated from this thematic analysis are presented in detail in the section Results of Chapter 5.

The single-case analysis was performed through two case studies performed along the guidelines of Harrison, Birks, Franklin and Mills (2017), and also drawing inspiration from the idiographic approached proposed by Salvatore & Valsiner (2010). The in-depth analysis of these two cases, participants K and F, varied in orientation. While the former was more brief and oriented to show how this participant interwove the different themes of the thematic analysis in a very particular fashion, the latter included a complete case analysis of participant F, addressing more biographical elements, and placing special emphasis in the unique, multi-faceted way in which he constructed his position as an economist in Chile. The results of these two case studies conducted are presented in Chapter 5 and 6.

CHAPTER 3. LOOKING FOR HAPPINESS, FINDING ECONOMIC GROWTH: THE CHILEAN TRANSITION TO DEMOCRACY

Carré, D. (2016). Looking for happiness, finding economic growth: The Chilean transition to democracy. In B. Wagoner, V. Glaveanu, & I. Brescó (Eds.), *The Road to Actualized Democracy: A Psychological Exploration. Niels Bohr Professorship Lectures in Cultural Psychology* (Vol. 4). Charlotte, NC: Information Age Publishing.

LOOKING FOR HAPPINESS, FINDING ECONOMIC GROWTH: THE CHILEAN TRANSITION TO DEMOCRACY

David Carré

On September 5th 1988, after 15 years of military dictatorship, Chileans saw on their TVs a message full of hope: "Chile, happiness is coming". This claim—presented as a lively jingle[1]—was the core message delivered by the campaign for the 'NO' option in the referendum to be held a month later. This referendum, the first election since March 1973 to have pre-established voter registration lists and international observers, asked Chilean to choose between two alternatives: 'SI', yes in Spanish, for extending the civic-military regime led by Augusto Pinochet 10 more years until 1997; or 'NO' calling for free presidential and legislative elections on 1989, and thus ending the dictatorship. In spite of the confidence of the regime in a landslide victory and the unclear consequences for the people campaigning against it (Valenzuela & Constable, 1988), more than seven million people cast their ballots on October 5th. The result was a resounding 56% of support for the 'NO' option. Apparently the idea of reaching a long-overdue happiness moved Chileans to bet against all odds and oppose the dictatorship in the polls. Not long afterwards, on March 11th 1990, another historical moment was broadcasted on national TV: Pinochet himself handed the O'Higgins badge—symbol of the presidential office—over to Patricio Aylwin, the center-left candidate who won the free elections of 1989, in the newly built National Congress. This epic story, portrayed by the 2012 film *No* (Larraín & Larraín, 2012), appears both as the downfall of a cruel dictatorial regime and the emergence of an all-new democratic era. An era that brought stable democracy, reduced poverty from 38,6% to 11,7% (Ministerio de Desarrollo Social, 2016), increased the size of the economy by four times (from $4,407 to $22,316, as GDP per capita, PPP) (World Bank, 2016), and made the country a member of the Organization for Economic Co-operation and Development (OECD) in 2009. That is the story of how Chile moved from its most recent dictatorship to the current democracy; at least according to its political, economic, and technocratic elite (e.g., Boeninger, 1997).

Yet 20 years after those events, the most likely scene to find in the streets of Santiago de Chile, especially on a Thursday morning, is a demonstration of over 100,000 high-school and college students chanting: *and it's going to fall / and it's going to fall / the educational system of Pinochet*. Far from an isolated phenomenon, the malaise voiced by students' organizations was endorsed by most of the

[1] The main campaign video is available online at https://www.youtube.com/watch?v=H3Jph-eMjX8, the translation of the lyrics is available in Appendix 1.

citizenry[2] and escalated dramatically: what started as calls for banning profit on higher education institutions turned into demands for reverting most of the 'social reforms' (Gárate, 2012, p. 262ff) implemented by the dictatorial regime. These reforms 'modernized' four key social areas—pensions, healthcare, education, and labor relations—by liberalizing the first three into for-profit markets and minimizing any influence of trade unions. This so-called modernization, however, has created average pensions under the minimum wage, i.e. less than US$300 per month (Superintendencia de Pensiones, 2016); public hospitals with a US$240 million operational deficit (Alarcón, 2016); an educational system in which performance is mostly explained by family income and social differences (OECD, 2014); as well as a median wage under US$500 per month (Durán & Kremerman, 2015[3]). These figures, typically overshadowed by the stunning macro-economic indicators mentioned above, provide hints about the less than bright side of the country's recent success.

To the external observer, who is probably aware of Chile's sustained economic growth, the scenario described above should be puzzling. In fact, for many internal observers—mostly elite members—this was puzzling too (Mayol, 2016). Thus several questions were raised in the wake of the 2011 grassroots movements: how is it possible that in such (macro-economically) successful country there are massive, widely supported demonstrations? Moreover, why do Chileans still protest against Pinochet's educational system and his reforms if the center-left coalition that defeated him in the 1988 referendum led the government uninterruptedly until 2010? Does this whole movement imply that, after more than 20 years of democratic rule, ordinary people perceive that things are no different from the times of dictatorship? But, is this idea even conceivable? In fact, the very notion that democratic rule is similar to a form of dictatorship is something that not only defies the 'official' narrative about Chilean transition to democracy (e.g., Moreno Brid & Hernández, 2004), but also seems to go against conventional wisdom and ordinary experience. On the other hand, it also seems naïve to assume that the whole legacy of a dictatorial regime would be gone just by handing office to a democratically elected government.

To see through this apparent contradiction, the ideas developed by Moghaddam (this volume; see also 2013) appear as a helpful approach. Even though his case studies mainly involve revolutions that succeeded in toppling dictators but failed in establishing long-lasting democracies (e.g. Iran in 1979, most of Arab spring countries), I argue that his ideas remain valuable to understand progressive

[2] According to national opinion surveys (ADIMARK GfK, 2011, 2012, 2015), by December 2011 there was a 70% of support to the demands raised by the social movement for education. Remarkably, this support, which peaked at 79% on September 2011, remains above 70% by June 2015.

[3] These authors also discuss on the implications of such low wages; in particular they connect it to the shocking figures about debtors in Chile: while the workforce is composed by approximately 8 million people, the total number of debtors is 11 million people—of which 4 million are defaulters.

processes of transition from dictatorship to democracy, like the ones that took place in Latin America during the 1980's. More specifically, in this chapter I aim to show how the ideas developed by Moghaddam offer an insightful perspective on the Chilean transition and the 2011 grassroots movements. To do so the present chapter is organized as follows. First, a summary of the Moghaddam's ideas on democracy and dictatorship is presented. Afterwards, I develop a summarized historical account of Chile between 1965 and 2015 to provide sufficient context for a proper understanding of the post-1990 transition process. Following this, I discuss in which ways Moghaddam's social-psychological view sheds light on why a peaceful, economically-successful transition to democracy like the Chilean one has produced the current levels of social discontent. Finally, I conclude this chapter with remarks on the implications of Moghaddam's ideas for further understanding, and potentially addressing this malaise.

MOGHADDAM ON DICTATORSHIP AND DEMOCRACY: BEYOND INSTITUTIONAL LABELS

At the beginning of his *The Psychology of Dictatorship*, Fathali M. Moghaddam (2013) declares his reason for addressing such a contentious topic: the major gap he observes between academic accounts on dictatorship and his first-hand experience living under a dictatorial rule. In particular, he criticizes the excessive emphasis given by scholars to ideological elements. In brief, he is skeptic about the idea that ordinary people do not resist dictatorships because they submit to the master narrative of the regime, and so they lack any empowering ideologies that support them in breaking their oppression. Against this position, Moghaddam holds the view that citizens are both aware and skeptical about the ideological principles that dictatorial regimes allegedly champion; yet people must submit in order to avoid the regime's surveillance and violence against those that stand out. For him, however, ideology in dictatorship plays a different role: it becomes the common narrative unifying and justifying the ruling elite and its oppressive actions.

Moghaddam's critique (2013), it could be argued, is one that puts into question the assumed macro-social character of dictatorship. Certainly not by denying this character, but rather by complementing it with a perspective that is sensitive to individual and psychological aspects. As seen above, major social trends, like ideologies, are crucial to understand the functioning of dictatorial regimes—e.g., communism in China—; but these collective trends cannot be assumed to plainly control every individual living under the rule of a regime. This social-psychological perspective on dictatorship is echoed by his approach to democracy (Moghaddam, this volume), which revolves around two ideas: the macro-micro rule of change and the democratic citizen. The basis of the former idea is a continuum running between pure dictatorship and pure democracy as, for Moghaddam, democracy and dictatorship are not separate, distinct categories but rather orientations towards which a given society gravitates at a certain moment. Alongside the direction in which social change happens is the level, or order, at which societal change occurs. In this sense, while first-order social change—viz. fashion, customs—does not

really alter the governance system, second-order change does affect the formal social system, for instance by introducing changes in the law. These macro-social changes, however, do not necessarily lead to an immediate transformation of people's values, attitudes, or social relationships—i.e. third-order change. That difference is the key to Moghaddam's micro-macro rule of change: whereas first- and second-order change can take place overnight, third-order change takes considerably longer. In concrete terms this means that macro-institutional changes might happen quite fast, but people's ordinary behavior and thought change at a much slower pace—and not necessarily in line with the former.

Taken together, the dictatorship-democracy continuum and the macro-micro rule of change provide an analytical perspective that goes beyond broad institutional labels. The former idea, on the one hand, shows that it is actual governance what determines whether a certain government leans towards a dictatorial or a democratic rule, *regardless* of the voting system by which it got in office. This pragmatic view, as it will be shown later, is crucial to bring the shortcomings of electorally flawless democracies to the fore. Through the macro-micro rule of change, on the other hand, Moghaddam (this volume) looks at democracy from the perspective and experiences of the individuals daily involved in it. Although he does not dismiss the importance of leaders and institutions, as he makes explicitly clear (see this volume, pp. 9-10), he is somehow returning to the root of democracy: the *demos*, or common people. Remarkably, he does not just state this relevance but he proposes a set of psychological characteristics that he considers crucial for citizens "capable of supporting, and participating in, a democracy" (p. 11) beyond electoral processes. Specifically, these characteristics are ten: self doubt; questioning sacred beliefs; revising opinions in light of evidence; seeking to understand those who are different from us; learning from those who are different; seeking information and opinions from different sources; openness to new experiences; creating new experiences for others; principles of right and wrong; actively seeking experiences of higher value[4].

As seen thus far, Moghaddam's ideas on democracy and dictatorship offer a novel, social-psychological perspective on these topics, which are typically addressed as macro-social and institutional. Yet to properly ponder how these ideas contribute in analyzing the Chilean transition from dictatorship to democracy, it is necessary to provide at least a rough historical summary of this process. Thereby, in the following I present a brief account of the 1965-2015 period, starting with the events that led to the military coup of 1973 and ending with the post-2011 social and political scenario. The main sources informing this account come from different disciplines—history (Gárate, 2012; Silva, 2010), political science (Huneeus, 2014),

[4] This set of characteristics could be respectively translated to 10 statements (see p. 11, Figure 2): "I could be wrong"; "I must critically question everything, including the sacred beliefs of my society"; "I must revise my opinion as the evidence requires"; "I must seek to better understand those who are different from me"; "I can learn from those who are different from me"; "I must seek information and opinions from as many sources as possible"; "I should be actively open to new experiences"; "I should be open to creating new experiences for others"; "There are principles of right and wrong"; "Not all experiences are of equal value".

economics (Ffrench-Davis, 2014), and sociology (Undurraga, 2014)—in an effort to provide a perspective that reflects the multiple ways in which Chile has changed. In spite of this, it should be noted that, as any reconstruction of historical events—especially recent ones—, this account portrays my personal view of them. As an eyewitness of the second half of this period it is pointless to pretend that I am an impartial observer. The selection of sources, however, aims to compensate the latter by including, for example, critical (e.g. Gárate, 2012) and supportive (e.g. Silva, 2010) views on the political conduction of the country after 1990. Likewise, while Huneeus (2014) is critical about the economic policies of the same period, Ffrench-Davis (2014) argues in favor of them. All in all, by contrasting different disciplines and positions I hope to present a brief but accurate picture of Chile's recent history.

DEMOCRACY BACK AND FORTH: CHILE FROM 1965 TO 2015

The changes experienced by Chile in the last 50 years are deep and thorough, as it is the case for many developing countries in the world. In terms of demographics, the figures are awe-striking: it doubled its population, from 8,6 from 17,6 million people (World Bank, 2016); the average income (as GDP per capita in current US$) increased from $547 to $13,383 (World Bank, 2016); literacy rate moved from 84 to 96 percent (Rosen & Ortiz-Ospina, 2016); attainment rates for upper secondary education rose from 38% to 77% (OECD, 2014); and so forth in many areas. Yet all this progress did not happen in the vacuum, as a result of a continuous, steady social process. On the contrary, these figures are the abstract representation of a period full of tensions and transformations, which have brought advances as well as setbacks. In order to make the presentation of those events more clear, this half-century period is sub-divided in four moments: before, during, and after the 1973-1990 dictatorial regime, and the current, post-2011 scenario.

CHILE LOOKING FOR 'REVOLUTIONS': 1965-1973

Choosing 1965 as the outset of the process that ended Chilean democracy in 1973 is no coincidence[5]. At the time, 5 years before the inauguration of Salvador Allende's

[5] As the middle of the sixties is a relevant date to understand the status of the global scenario in which Chile was striving for change. Recently after the Cuban Missile Crisis, the Cold War was at its height, and despite being far away from the centers of power, South America was not away from the conflict at all. Particularly after the Cuban Revolution in 1959, the US government perceived the threat that more Latin American and Caribbean countries could turn towards communism. This led to the US security and intelligence agencies to increase their counter-insurgency efforts through extensive training programs directed to Latin American military personnel. This training, mostly conducted in the School of Americas between 1963 and 1984 (Pineo, 2014), introduced military men from southern countries into the National Security Doctrine (Pion-Berlin, 1989), which set the agenda on subjects like state, national security, and strategy for most of the future military regimes in the region. In parallel to this, the CIA engaged in extensive covert operations in Chile between 1963 and 1973—as thoroughly detailed by the 'Church report' (1975). Notorious among these activities were the payment of 'assets' like Agustín Edwards Eastman—owner of the national biggest

Popular Unity government, the country was already living a "revolution in freedom" (see Juventud Democrata Cristiana, 1965). The term was coined by the president in office, Eduardo Frei Montalva, to declare his commitment in conducting deep social reforms without conceding to communist influence—at the time portrayed by Allende. Despite representing the political center, Frei Montalva implemented many progressive reforms during his government (Silva, 2010). Notoriously among them were the agrarian reform, which replaced the colonial land-ownership system (*latifundio*) and redistributed the farmlands among minor farmers; the 'chilenization' of the copper, i.e. the first step to nationalize the vast copper resources extracted by foreign companies; and the 'popular promotion', an initiative that supported the creation of thousands of community organizations (e.g., sports clubs, community centers) to canalize the increasing demands of participation from the citizenry (Huneeus, 2014). All these initiatives produced uncertainty to the local oligarchy, a conservative elite used to own the land and run the political affairs of the country at will (Salazar, 2005), and also to global powers that perceived a fertile ground for a communist turn in the country. In fact, these progressive transformations fell short of the impossibly high expectations created by the Frei Montalva administration despite addressing long overdue needs from lower- and middle-income classes (Huneeus, 2014); a situation that paved the way for a more popular-oriented alternative. In sum, beyond political affiliations, Chile was already transforming at an accelerated pace before Allende initiated his 'Chilean way to socialism'.

In this context of change and popular discontent, Salvador Allende secured in 1970 a slim majority by obtaining a 36,6% of the votes against a 35,2% of his closest competitor. After being ratified by the congress, following all constitutional procedures, Allende started a 1000-day long government that accelerated and deepened the reforms initiated by his predecessor. In his words this was "a revolution with *empanada* and red wine[6]". To do so, Allende's government fully nationalized several industries—commercial banks and copper mining, among others—, fixed the prices of basic goods, and increased real wages up to 55% (Ffrench-Davis, 2014). As noted by Silva (2010), however, Allende conducted these transformations in a very tight schedule and without a technically qualified team for such an enterprise. This added to the resistance from many land- and factory-owners and destabilized the economy of the country completely. The unprecedented 606% inflation rate on 1973 (Braun, Braun, Briones, Díaz, Lüders, & Wagner, 2000) is a

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newspaper—, and the many ways in which Allende's ascension to power was hindered—like the permanent funding of opposing organizations and politicians, or the successful plot for killing loyal general René Schneider (see Gustafson, 2003). In the big picture, however, all these interventions acted as a catalyzer of internal affairs rather than its origin. Therefore, while undeniable, the weight of the influence exerted by the U.S. government in Chile during this period is much more difficult to be properly assessed.

[6] This expression makes use of two typical foods, *empanadas* and red wine, in order to stress that the experience of socialism in Chile will follow its own traditions—respect to the constitution, in particular—rather than the armed revolutions through which it got into power in other countries.

case in point of such structural imbalance[7], which had a direct impact on day-to-day life through constant food rationing, shortages of basic products, and strikes. At the same time, political fractures led Allende's government to be increasingly isolated from the political center and center-left that initially supported him, which reduced its governability to the point of being declared as unconstitutional by the parliament in August of 1973. Maybe unbeknownst to the members of the parliament on that session, this declaration provided the constitutional legitimacy for the military to throw its long-planned coup d'état (Briones & Bosselin, 2013).

THE DICTATORIAL 'FREEDOM' OF THE MILITARY REGIME: 1973-1990

The image of *La Moneda* palace burning on the morning of September 11th 1973, after being air-bombarded by the Chilean Air Force, foreshadowed in many ways the next 17 years of the country. The most obvious one is the role of the military, which abandoned their subordination to the civil authorities and assumed the total control of the government through a *junta* composed by the heads of its four branches: general Pinochet (Army, and chief of the junta), admiral Merino (Navy), air general Leigh (Air Force), and general Mendoza (*Carabineros*, or civil police). That tragic scene also portrayed the brutality in which any form of opposition was going to be dealt with, something that the human rights violations committed by agents of the state to more than 27,000 Chileans between 1973 and 1990 sadly proves (see Comision Nacional sobre Prisión Política y Tortura, 2005). Finally, causing the house of the government to go up in flames somehow symbolized the deep blow that the regime would inflict on the Chilean state and its hitherto crucial role in the society—ending for good the attempts for reaching a welfare state initiated in the 1930's (Gárate, 2012).

As widely known, under the 1973-1990 dictatorial regime Chile experienced a dramatic social and economic transformation towards an extremely liberal form of capitalism, to the point of being labeled as "a laboratory for experiments in political economy." (Garcia & Wells, 1983, p. 287) These overarching transformations, however, were not devised by the military *junta* itself[8] but by a group of high-level advisors to the regime, loosely denominated as *Chicago Boys* (see Valdés, 1995). This label encompasses a number of Chilean economists who completed doctoral

[7] However, as Ffrench-Davis' data reveals (2014), during the 1970-1973 period and especially during 1971 the national GDP grew as close as ever to its potential GDP. This means that the country got almost the best possible performance out of its maximum economic capabilities (for more detail on this methodology, see Ffrench-Davis, 2014, Appendix).

[8] In fact, Gárate (2012) and Vergara (1984) propose that the regime did not have a master plan for the country besides ousting Allende and removing communist 'threats'. The first form of these plans came as a harsh report made by a number of the *Chicago* economists on the national economic policy. This report, known as 'the brick'—in Spanish, *El Ladrillo* (Centro de Estudios Públicos, 1975/1992)—, contained detailed suggestions on how to tackle the 'problematic' areas in order to reduce the inflation and make the economy thrive again. These suggestions soon turned into the initial lines of economic action of the regime.

studies at the University of Chicago under the intellectual influence of Milton Friedman, Arnold Harberger, and the Chicago School of Economics. Thus they became strong supporters of applying orthodox monetarism and free-market capitalism to every aspect of the social life, i.e. a neoliberal 'economicism' (Garber, 2014). Therefore, they stood in stark opposition to the ECLAC[9] developmentalist model (see Bresser-Pereira, 2011)—dominant in Chile since the 1930's—which considered the state as a main economic actor, responsible for fostering key areas for the national development. Some members of the *Chicago* group—notoriously Sergio de Castro, Miguel Kast, and Hernán Büchi—secured relevant positions along the military regime, which added to the strong support of key members of the *junta* since 1975[10] allowed them to implement no-holds-barred economic transformations. Thereby, a *shock therapy* (Ffrench-Davis, 2014; see also Sachs, 1994) based on shrinking the state, liberalizing the financial market, indiscriminately looking for international capitals, and privatizing state-owned companies, was applied in order to transform the structure of the national economy. This "capitalist revolution" (Gárate, 2012) of the economy was also extended to social areas like pensions, healthcare, education, and utilities—as mentioned at the beginning of this chapter. Thus all these areas experienced the same process: a withdrawing of the state, a process of privatization[11], and then letting private, for-profit initiatives operate them in competitive markets. Thereby what used to be state-provided social rights were transformed into commercial services provided by competing private companies. By so doing, the principle for allocating these resources shifted from beneficiaries' *needs* to their *payment capacity* (Atria, 2016). In this new scenario, the state assumed a subsidiary role by covering only those areas in which private companies would not be attracted to compete—for instance, providing healthcare or pensions to those with limited or no resources to spend.

Until 1982 economic and social reforms following the former spirit were conducted with strict rigor. Ironically, the doctrinaire rigor on deregulating both foreign capital inflow and national financial institutions created an exchange rate imbalance that triggered the worst economic crisis experienced by the country since the Great Depression (Ffrench-Davis, 2014). Even though this major collapse of the economy

[9] Economic Commission for Latin America and the Caribbean, dependent from the United Nations.

[10] Vergara (1984) describes in detail the micro-political intrigues by which the *Chicago Boys* view, supported by Pinochet and Merino, managed to overcome the traditional pro-state orientation of the military. Furthermore, Gárate (2012, p. 195) proposes that the alignment of the *junta* with the neoliberal proposal did not come out of rational deliberation but due to its technical and scientific presentation, which would present the regime as apart from ideologies and politics.

[11] It is necessary to mention that, as Gárate (2012, p. 314) notes, most of these privatizations were done at impossibly low prices and on companies that operated within strict regulations, provided good-quality services, and were profitable. Moreover, as Huneeus (2014) reveals, most of the new, private owners of these companies were people close to the regime that in most cases used privileged information to secure the operation. Hence, despite a liberal façade, these privatizations hide very questionable elements.

drove the regime to apply pragmatic measures to alleviate the crisis—e.g. rescuing the insolvent banking industry—, it did not make the regime change the core of the neoliberal political economy that *Chicago* technocrats and now also the IMF (International Monetary Fund) advised. Thus a harsh, multi-year structural adjustment program was set in motion to renegotiate the external debt. Here it is worth mentioning the question made by Meller (in Gárate, 2012, p. 305) about the handling of this crisis: Can a democratic government create an structural adjustment program that keeps the unemployment rate above 24% for four years, that reduces real wages by 20% and keeps them depressed for five years, and that shrinks social expenditure per capita in 10% for 6 years? As Gárate (2012) remarks, this is likely impossible in any democratic context[12], and so it should be a reminder of the authoritarian context in which these economic and social policies were implemented. Moreover, in an ironic turn of events, the adamant handling of this crisis would become the first step towards the fall of the regime.

According to Ledesma De Lapeyra data (1998, p. 289), the already massive crisis had a disproportionately negative effect on lower- and middle-income classes. Not surprisingly, this was the breaking point for students, unionized workers, and shantytown residents to begin in 1983 the national protest days (*jornadas de protesta nacional*), a series of eleven massive protests that lasted until 1986 and called for ending the dictatorship (Schneider, 1995). Even though the immediate reaction of the regime to these protests was murderous repression, it opened a unique opportunity for the diminished political opposition to assemble and start negotiations with the regime. These negotiations were harshly criticized by popular, grassroots movements for validating the status of the regime, but they ultimately secured the commitment of the regime in conducting the 1988 referendum with more transparency—i.e. the presence of international observers and having pre-established voter registration lists (Huneeus, 2014). Notwithstanding this tension, the referendum upset—described at the beginning of the chapter—is, for Huneeus (2014), explained precisely by the combination of the strong political involvement of the citizenry in the protest movement, and the cohesion of politicians of all colors against Pinochet—rather than a lively, one-month long TV campaign offering happiness, as conventional wisdom proposes.

After the regime conceded defeat on the evening of the referendum day, the fate of the most recent dictatorship in Chile was sealed. Yet, during its two remaining years, the regime did not stay passive in the least. Working on the assumption that its candidate for the 1989 presidential election[13] would be defeated by the

[12] As observed by the editors, this scenario resembles policies implemented by the current Brazilian temporary government lead by Michel Temer, which have frozen social expenditure for the next 20 years (Phillips, 2016) despite criticisms even from the UN (Watts, 2016). The questionable ways in which Temer's government ousted former president Dilma Rousseff makes Meller's question also relevant for the current situation in Brazil.

[13] The presidential candidate was no other than Hernán Büchi, a second-generation *Chicago Boy* who was Head of the Treasury since 1985 and redoubled the liberal policies after the crisis.

opposition—as it happened—, a total of 226 'blocking laws' (*leyes de amarre*) were passed to hamper any real modification to the economic and social reforms (Huneeus, 2000). Moreover, after two years of expansive social expenditure—which left an impression of economic success, despite all the overall appalling figures (Ffrench-Davis, 2014)—, the upcoming government was left with a budget deficit of US$300 millions. Hence, even if the democratic rule was reestablished in March 1990, the power of the dictatorial regime cast a long shadow into the public life for the next decade. Surprisingly, the influence of its social and economic reforms would last much longer than the power of the military.

DEMOCRACY POST-PINOCHET, THE *CONCERTACIÓN* YEARS: 1990-2011

To fully understand the developments of the Chilean democracy after Pinochet it is necessary to understand first the political elite that governed the country during the 1990-2010 period: the *Concertación* (Huneeus, 2014). The *Concertación de Partidos por la Democracia* (Coalition of Political Parties for Democracy) was the coalition where all the *political* groups that opposed the dictatorial regime, except for the Communist Party, converged. I emphasize political since the *Concertación* grew increasingly distant from grassroots movements (Undurraga, 2014), especially unions, even though they played a crucial role in ending the dictatorial regime. Nevertheless, the *Concertación* was the most successful coalition in electoral terms in Chilean history: it not only defeated Pinochet's regime in the voting polls but also won four consecutive presidential elections and had a slight majority in both Congress chambers for 20 years. Likewise, its success in macro-economic terms, as detailed at the beginning of this chapter, is unparalleled in Chilean history. While the latter contributed to achieve major goals (e.g., notoriously reducing the poverty rate), the overarching political doctrine of the *Concertación* and its social impact is much more debatable—as the figures in the second paragraph of this chapter reveal. In brief, it is possible to observe across the 20 years of *Concertación* governments a major gap between an accelerated economic growth and a slow, unequal human development. A phenomenon denominated by the UNDP[14] local branch as "the paradoxes of modernization [in Chile]" (1998). The origins of this asymmetry are to be found in the first years of the 1990's.

When Patricio Aylwin, the first president of the *Concertación*, was sworn in office on March 1990 he received a divided country with opposed expectations from different social groups. Particularly contradictory were the opinions around the socio-economic reforms implemented during the dictatorship (Huneeus, 2014). On the one hand, businessmen and right-wing politicians devoted heart and soul to defend—what they considered—the regime's great legacy of modernization, foretelling the return of the times of Allende—i.e. lines for groceries, inflation, etc.—if anything was changed. On the other hand, the *Concertación* was divided between a minor group who considered necessary to repel most of these policies,

[14] United Nations Development Programme.

especially privatizations; and a majority group of politicians and technocrats who preferred a policy of 'pragmatic continuity' in order to present the *Concertación* as a wise governing coalition, *capable of keeping the economy growing before addressing social inequalities*. Here Aylwin followed the 'pragmatic' line advocated by his Head of Treasury, Alejandro Foxley, and his technocratic team of economists, introducing only minor adjustments to the works of the *Chicago* team. This so-called pragmatic approach seems puzzling and raises the question (Gárate, 2012) why the *Concertación* embraced the regime's policies as part of their own political project—despite its regressive social impact and authoritarian origin.

The former choice, far from a contradiction, lies in the roots of the *Concertación's* economic team: the CIEPLAN[15] 'monks' led by Alejandro Foxley (Silva, 2010). During the 80's, in the midst of harsh political repression, the think-tank CIEPLAN became the only safe space for criticizing the *Chicago Boys*' policies given its sophisticated use of the same technical language and methodologies with which the *Chicago* grouped worked (Gárate, 2012). After the 1982 crisis and the subsequent social unrest, the economists from CIEPLAN moderated its harsh criticism and focused in proposing *incremental modifications* to the existing neoliberal policies to alleviate their evident social costs for lower- and middle-income classes—and thus keep the social order (Huneeus, 2014). Thereby, any reform oriented to change the income distribution (e.g., eliminate taxation loopholes for top income, regulation on wages negotiation), or promote an industrial policy, was thereafter disregarded. These elements are the gist of the 'growing with equality' (*crecer con igualdad*) doctrine (Ffrench-Davis, 2014) implemented—only with minor differences—along the four *Concertación* governments. Therefore, by the time of elaborating the first *Concertación's* governmental program in 1989[16], none of the technical members behind it was looking to transform the core of the economy as the regime established it—contrary to the high expectations created in the people by political leaders. Moreover, the four presidents of the *Concertación* never tried to change this orientation, thus leaving the conduction of the Treasury (*Ministerio de Hacienda*) to different teams of technocrats and technopols (see Silva, 2010 for a review). It is important to note that in Chile the Treasury has full control over the Budget Office, which in practice gives the Treasury—and its Head—an influence way beyond its areas of decision (Silva, 2010). Therefore, both the national economy and the allocation of state-resources became a 'reserved domain' (Huneeus, 2014) that could only be discussed in the technical jargon of expert economists. This major influence of economic technocrats, as Silva (2010) proposes, helped in establishing a buffer that kept economic policy stable beyond political turbulences. On the other hand, as

[15] *Corporación de Estudios para Latinoamérica* (Corporation of Studies for Latin America).

[16] Here is important to note two major changes in the global scenario at the time. First, international creditors as the World Bank and the International Monetary Fund (IMF) had started in the 80's to set many of the regime's neoliberal policies as 'suggested reforms' for giving loans to developing countries—the so-called Washington Consensus. Secondly, the progressive collapse of the Soviet Union made a great impact in those who opposed liberal capitalism as it left them without any viable alternative. These two elements made incredibly difficult to hold a fully critical stance on the transformations made by the *Chicago Boys*.

Gárate (2012) argues, by 'leaving the economy to the experts' a major part of the governmental decisions were controlled by a little number of unelected technocrats, excluding the citizenry from any participation beyond voting for those who will appoint the experts. As it will be shown in the closing of this chapter, *both* Silva's and Gárate's positions are relevant for understanding how Chile consolidated its democracy—and also the current citizen discontent.

Following Aylwin's government, Eduardo Frei Ruiz-Tagle came into office for a 6-years period after a swift victory in the polls. During his term, new and younger technocrats—the so-called *Frei Boys*—had a relevant role in a government defined by the goal of modernizing both the state apparatus and the economy even more. Despite the recessive effect of the 1997 Asian financial crisis and the sudden arrest of Pinochet in London in 1998[17], Frei's agenda did not change much from what was described in the previous paragraph: as the GDP grew above 5% in average, his government increased the social expenditure in healthcare and education, and also started an extensive program of private concessions for public infrastructure (Ffrench-Davis, 2014). Not surprisingly, Frei's successor was his minister of Infrastructure, Ricardo Lagos. Lagos, the first socialist to assume the presidential office since Allende, did not differ much from his two predecessors despite its political affiliation and the ups and downs of the economy. Even if during his government technocratic teams of economists lost certain relevance to political advisors (Silva, 2010)—mostly lawyers—, the third government of the *Concertación* ended up deepening the private concessions policy, including the banks as creditors for higher education students (CAE), and subscribing free-trade agreements with the U.S., the E.U., and China.

The fourth and last government of the *Concertación*, however, was different in many areas. First, it was led by Michelle Bachelet, the first woman in history to assume the presidential office. Also, she voiced the UNDP (2004) critique towards a national elite, composed by politicians and technocrats alike, concentrating the power and blocking any form of *participatory* democracy. Thereby her government aimed to have a 'citizen orientation', in which technocrats, politicians and citizens could discuss together about the country (Silva, 2010). Despite her intent and the inclusion of more 'citizen-oriented' technocrats—mostly from the think-tank *Expansiva*—, her Head of Treasury, Andrés Velasco, had the typical influence over the whole government, deciding where to allocate state resources without any popular input. Deepening the irony on his participatory effort, Bachelet's government faced the first major movement of protests since the return of the democracy, as in 2006 tens of thousands of high-school students demanded more funding for public education. On the other hand, her government implemented a dramatic increase of social expenditure—supported in all-time high prices of copper—aimed to alleviate the social consequences of the 2008 financial crisis.

[17] This event—maybe surprisingly—did not have major political consequences despite its symbolic relevance. Although it made crystal-clear that the military was no longer a force that could destabilize—not to stay overtake—democracy again.

Interestingly, this policy partially bended the *Concertación* doctrine of keeping macro-economical balances above social welfare at any cost. Not surprisingly, it also helped Bachelet reach an unprecedented popularity (84% of approval) that foreshadowed how deeply the people expected further involvement from the state. Paradoxically, in 2009 the country elected the center-right candidate, Sebastián Piñera, a renowned businessman that promised taking technocracy and economic growth to the next level of efficiency. However, after only one year in office, Piñera's administration had to face the massive series of protests for education described at the beginning of this chapter, which thenceforth took over the national agenda and cornered the government.

Looking for a participatory democracy: Chile post-2011

At this point, now with a deeper understanding of the socio-historical process lived by Chile in the last 50 year, the sudden and deep expression of social discontent in 2011 should be less puzzling than it was at the beginning of this chapter. In the 60's and 70's Chile used to be a poor, mostly rural country that struggled with inflation; but had an increasingly growing state that managed to provide social services—healthcare, education, pensions, etc.—in an egalitarian way. Since the 80's the country became increasingly rich in macro-economic terms, but social services were turned into products to be traded within competitive, for-profit markets. This change improved and expanded these services, but it was an improvement that only those wealthy enough to afford them—or willing to become debtors—could benefit from. Even if after the 90's the country entered the 'high income' category (World Bank, 2016) and there were consistent efforts for expanding state support, the access to proper social services is still determined by income (see Cotlear et al., 2015; Santos & Elacqua, 2016; Vargas, 2006). In the country with the most unequal income within the OECD (2016), the former scenario has left most of the population out of both economic growth and human development. If this tension broke out through higher education, it is mostly because this has left thousands of young Chileans with massive student loans and poor education (see Guzmán, González, Figueroa & Riquelme, 2014).

The former helps in understanding the deep roots of the social malaise that has dominated the country since 2011, yet not its 'sudden' appearance. This sudden character appears as such given how isolated the political establishment grew from ordinary citizens during the governments of the *Concertación*. With less than 5% of the population participating in them, political parties did not provide a space to include grassroots movements. Furthermore, the technocratic emphasis of the governments since 1975 deepened an old trait of the Chilean elite, namely the fear that including citizenry in any social deliberation could escalate and turn into anarchy [18] (Huneeus, 2014). Whilst technocrats certainly have undoubtedly contributed in running the state more efficiently by developing better public policies

[18] Not surprisingly, this spirit is perfectly captured in the 1980 constitution, which does not include any form of referendum or popular initiative.

(Silva, 2010), their independence soon turned into isolation from any social input. Considering both elements, citizenry was left with no voice or role about the future of their communities, regions, or the country altogether—beyond casting a vote every 4 years (Gárate, 2012). As the UNDP noted more than 10 years ago (2004), power—in the broadest sense—in Chile is too tightly concentrated in a political, economic, and technocratic elite. Thus the possibility for the people to express its discontent within any institutional frame was—and still is—close to none, and so it has erupted through several protests and strikes since 2011. Examples are many. The social movement for education, far from a short burst of discontent by college students in Santiago, extended nationwide and was visibly active, through massive street protests, at least until 2015. Likewise, during 2016, the grassroots movement 'No+AFP' (No more AFP [Pension Funds Managers]) got major traction in his efforts for repelling the pension system implemented by the military regime. In August 21, this movement managed to take around 1 million people (around 6% of the population) to the streets in 50 cities, in what probably has been the single biggest demonstration in Chilean history. Moreover, several regional movements across the country have locked out their communities for weeks in order to raise their local demands; so has been the case of Aysén and Freirina, in 2012, and Chiloé, in 2016.

Despite this heated climate, democratic institutions kept working in order and Michelle Bachelet was reelected in 2013 as president. For her second term, Bachelet listened to the citizenry demands and thus proposed tax, pensions, labor, educational, and even constitutional reforms. Not surprisingly, she won the run-off election by an unprecedented 62% of the votes. Behind this landslide victory, however, there was the lowest turnout since the return to democracy: a mere 41% that paled against the 94% of turnout in 1989—another sign of the increasing distance between citizenry and its political representatives. Regrettably, the ambitious governmental program spread Bachelet's administration too thin over too many areas, proposing reforms that received widespread criticism. On the one hand, a citizenry eager to see deep changes as soon as possible criticized these reforms as 'too late, too little'. On the other hand, conservative groups hindered the reforms for considering them as 'populist' initiatives. Despite failing in securing most of the goals intended by the social reforms, Bachelet's administration has distinctively advanced in citizen participation; especially through the 'citizen dialogues' (*dialogos ciudadanos*) that have informed—although to a little extent—both the constitutional and the educational reforms. The latter, however, has not helped the government in improving the poor perception that the public opinion has of it, with a mere 24% of approval (ADIMARK GfK, 2015).

Having in mind this outlook of the last fifty years of Chilean history, it is now possible to determine to what extent Moghaddam's ideas on dictatorship and democracy are insightful for this case. In particular, in the following section I elaborate on how his proposal is fruitful to understand the deep social malaise expressed since 2011.

DISCUSSION: DEMOCRACY-AS-VOTING-SYSTEM AND PARTICIPATORY DEMOCRACY

The first element of Moghaddam's proposal that sheds new light on the Chilean case is the continuum between pure dictatorship and pure democracy. As noted before, this thought-provoking idea is an invitation to look at societies beyond their current voting system and instead focus on concrete ways of governing and living. In the case of Chile, Moghaddam's continuum is particularly useful to see how the change of regime—from dictatorial to democratic—that happened in March 1990 was neither instantaneous nor complete. Chile advanced many steps closer towards 'pure democracy' right after that moment indeed, notoriously by recovering the right to elect its representatives and openly dissent from the government without prosecution. Yet the legacy of the dictatorship certainly persisted through the democratically elected *Concertación* governments; either by external blockades—like the 1980 constitution—, or by choice—as the technocratic, economic-centered way of governing. These elements, which remain ingrained more than 25 years after the change of regime, are some of the reasons why Huneeus (2014) labels Chilean democracy as 'half-sovereign'. An apt description for a democracy that is trying to move away from its dictatorial past towards a more participatory orientation, for instance through the citizen dialogues implemented by Bachelet's second administration; but it is certainly not yet there. Without Moghaddam's continuum, these nuances are hidden under a binary, dictatorship-or-democracy logic that the post-Pinochet political elite has repeatedly used to validate their actions (e.g., Tironi, 2016). At the same time, the granular analysis allowed by the continuum makes easier to understand the citizen discontent despite the fully democratic character of Chilean elections since 1990.

Furthermore, Moghaddam (this volume) reminds us that social change towards democracy— or dictatorship—occurs at different levels and timings. According to his macro-micro rule of change, there is a difference between (potentially) fast-paced changes in the formal system (first and second order respectively), like social customs and laws, and slow-paced changes of the informal system (third order), as the thoughts and behavior of the people. Therefore, changes in the latter do not necessarily convey a transformation of the latter. For the Chilean case, this rule fits squarely with how after 15 years of formal, state-driven political repression Chileans did not change either their thoughts or behavior about elections—thus attending *en masse* the voting polls in 1988. Yet it is also possible to see how one systemic transformation to the formal system in particular has impacted the informal, personal level: the provision of social services (education, healthcare, etc.) through for-profit markets. This massive change has opened the possibility to choose among different providers besides the state, although with a major caveat: that level of 'freedom' goes hand-in-hand with the monetary resources that each person or family has—as in any open market. Given the strong income inequality described above, this transformation has only deepened segregation in Chilean society, as socio-economic level nowadays determines where Chileans live (Vargas, 2006), which schools they attend (Santos & Elacqua, 2016), and what healthcare

they receive (Cotlear et al., 2015). Whilst this makes high-income groups free to choose the alternative they prefer, it relegates most of the population to isolated neighborhoods, low-quality education, and poor healthcare, since that is what they can afford. If anything, these transformations have provided a justification for long-standing classism in Chilean society[19], as now the formal system naturalizes the idea that people should receive only what they pay for—thus turning solidarity into an outdated notion. Moreover, this multi-level segregation has dramatically reduced interaction between members of different socio-economic groups, thus stimulating what the UNDP called a generalized "fear of the other" (1998, p. 127f) between fellow Chileans. Thus it is clear how a systemic change has altered—certainly for worse—the way in which Chileans think about and behave to those that are perceived as different. As noted by three of the ten defining characteristics of Moghaddam's democratic citizen (seeking to understand those who are different from us; learning from those who are different; and creating new experiences for others), this changes at the personal level are not to be taken lightly as they erode the social fabric that holds a democratic society together.

Tightly connected to the privatization of social services, there is an ideological aspect to the Chilean transition that is also interesting to analyze from Moghaddam's (this volume) perspective: the emphasis given to economic growth over human development. Following Pareto's (1935) critical assessment of elite theories, Moghaddam (this volume) proposes that, in dictatorships, ideologies are the narratives that justify the atrocious acts of the ruling elite—yet are taken with distance by ordinary people. The case of the 'freedom ideology' invoked by the military regime to prosecute his political opponents—in their words "eliminate the Marxist cancer" (Ortiz de Zárate, 2010, p. 166)—exemplifies this principle very well. However, the economic turn that such 'freedom' took along the regime—discussed above—permeated beyond the dictatorial elite right into technocratic and political elite of the forthcoming democracy. As previously described, key politicians and technocrats agreed on following a 'growing with equality' doctrine since the inception of the *Concertación*. In all fairness, this doctrine was different from its predecessor as it aimed to alleviate through social expenditure the structural income inequalities created by a hyper-liberalized economy. Yet the former was possible only under sustained macro-economic growing conditions, following trickle-down economics reasoning. Therefore, by focusing in ameliorating rather than tackling structural inequalities, the leading elite of the *Concertación* put forward a less radical variation of the ideology displayed by the dictatorial regime instead of a fundamentally different one (Huneeus, 2014; Undurraga, 2014). Thus, contrary to Moghaddam's proposal, democracy in Chile did not bring different elites with competing ideologies, but rather a 'free-market' of competing public policies (Gárate, 2012) that shared a common ideological background.

[19] Classism certainly is a defining characteristic of the Chilean society. Probably part of the colonial legacy, it has remained strong since the advent of the republic (Salazar, 2005).

The analysis of the elites' ideology during Chilean transition to democracy, however, should go beyond insightful comparisons and focus instead on how it has affected the advance towards an 'actualized democracy' (Moghaddam, this volume) in Chile. In this sense, a consequence of this 'ideological narrowing' is the distancing between political representatives and the citizenry. This distancing, evident since 2011, follows from the simple fact that the majority of the population has expressed very clearly—in recent elections and demonstrations—to prefer equal human development as a priority alongside economic growth, not below it. Regrettably, most of the political, economic, and technocratic elite has consistently dismissed this expression of popular will as a mere populist burst[20]—a critique that potentially questions the very basis of modern democracy, namely popular sovereignty. Hence, beyond its continuity from the dictatorship, the most worrying aspect of the ideological orientation of the Chilean democratic elite seems to be its disregard towards the expectations of most of the citizenry that it aims to represent.

The former disregard of citizenry aspirations by the elite also has a strong technocratic component associated to it. Since economic growth was turned into top priority and most of the social services were converted into competitive markets, the discussion about the whole Chilean society turned into an *economic* discussion[21]. As clearly shown by the debate between *Chicago Boys* and CIEPLAN economists in the 80's, or the role of the Heads of Treasury during the 90's and 00's, the social debate in Chile has been discussed by economists in the technical jargon of economics, and based in econometric evidence. Although this could hardly be criticized for making the debate more rigorous and scientific, this "rise of economists" (Markoff & Montecinos, 1993, p. 37) as key social actors is likely connected to the disregard of the citizenry (Gárate, 2012). In this vein, any element brought to the social debate that escapes economic rationality, or econometric measure, has been typically disregarded as irrelevant, or derided as 'mere ideology'. Likewise, those who do not speak the technical jargon of economics could hold only a minor voice in the discussion. Interestingly, these elements have worked as implicit rules, especially since the 90's, even though many contemporary Chilean economists think that it is not reasonable to pretend that economics should—or could—settle every aspect of the social debate (Carré, in preparation). The latter, unfortunately, has not made a difference in how the views and experiences of citizen movements have been downplayed by the media, politicians, and even the rest of the citizenry—precisely for not being presented through economic arguments. Inversely, as some economists criticize (Carré, in preparation), many have misused their qualifications in economics just to have a better platform to influence the debate. This critique to the foremost role that economists have been given in Chile during the last 50 years is by no means an effort to deem their undoubted and

[20] Far from populist bravado, however, even ECLAC economists (e.g., Ramos, 1995) have supported this position since decades, attending the social costs of a sequential approach (i.e. growth, then equal development).

[21] As Ariztía (2011) aptly describes it, the primacy of economic elements and the language of economics have been the "lingua franca for the political transition [to democracy] and the intellectual basis for the [Chilean] development model." (p. 13)

necessary contribution as irrelevant. It is rather a call for a social debate informed by plural perspectives, in which ordinary citizens could have their views and experiences attended[22]. On this, suggestions for including the citizenry in a more active role made by scholars like Silva (2010) and Ffrench-Davis (2014), who have defended the valuable contribution of technocrats—especially economists—during the transition to democracy, should not be dismissed. A shift on this direction could not only make the Chilean democracy advance towards a more actualized form—as already suggested by the UNDP (2014)—but, eventually, empowering Chilean citizens into bringing the happiness that they have long-awaited.

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[22] This is not to say that citizenry has only been secluded from having a participatory role since recent decades or only because the rise of the economists, as this exclusion seems to be one of the defining traits of the country (Salazar, 2005).

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APPENDIX 1

"Chile, la alegría ya viene" by *Sol y Lluvia*

Original lyrics	*English translation*
Chile, la alegría ya viene (bis)	Chile, happiness is coming (bis)
Porque digan lo que digan yo soy libre de pensar. Porque siento que es la hora de ganar la libertad, Hasta cuando ya de abusos, es el tiempo de cambiar Porque basta de miserias voy a decir que no.	Because whatever they say, I'm free of thinking Because I feel that is the time for gaining freedom It's enough of abuses, it's time to change Because it's enough of misery, I'm going to say no
Porque nace el arco iris después de la tempestad, Porque quiero que florezca mi manera de pensar, Porque sin la dictadura la alegría va a llegar, Porque pienso en el futuro voy a decir que no.	Because after the storm comes the rainbow, Because I want a thousand ways of thinking to blossom Because without the dictatorship, happiness will come Because I think of the future, I'm going to say no.
Vamos a decir que no, oh con la fuerza de mi voz, Vamos a decir que no, yo lo canto sin temor, Vamos a decir que no, vamos juntos a triunfar, Por la vida y por paz.	We're going to say no, with strength of my voice, We're going to say no, I sing it without fear We're going to say no, together we will triumph For life and peace.
Terminemos con la muerte, Es la oportunidad de vencer la violencia, Con las armas de la paz. Porque creo que mi Patria necesita dignidad. Por un Chile para todos, vamos a decir que no.	Let's end with death, This is the chance of defeating violence, With the weapons of peace. Because I believe that my country needs dignity. For a Chile for all, we're going to say no.
Vamos a decir que no, oh con la fuerza de mi voz, Vamos a decir que no, yo lo canto sin temor, Vamos a decir que no, vamos juntos a	We're going to say no, with strength of my voice, We're going to say no, I sing it without fear We're going to say no, together we will triumph

triunfar, Por la vida y por la paz. Chile, la alegría ya viene. (bis)	For life and peace. Chile, happiness is coming. (bis)

CHAPTER 4. TOWARDS A CULTURAL PSYCHOLOGY OF SCIENCE

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TOWARDS A CULTURAL PSYCHOLOGY OF SCIENCE

David Carré

Abstract

In the present article the general guidelines for a *cultural* psychology of science are proposed. In order to do so, the first section of this article presents a literature review of the philosophical, sociological, and psychological studies of science during the 20th century. Through this review, it becomes clear that the existing studies of science have either neglected the personal role of the scientist, or subsumed it under collective elements, or reduced it to cognitive styles and personality traits. To overcome this shortcoming, the cultural psychology of science proposes to understand the scientist as a purpose-oriented person that constructively transforms culturally available meanings in order to create novel, scientific knowledge. Therefore, this proposal looks to emphasize the crucial, driving role of the person of the scientists for the creation of novel scientific knowledge.

Keywords: psychology of science, social studies of science, cultural psychology, personal knowledge, philosophy of science

While the construction of scientific knowledge is both personal and social in nature, in recent decades, the inquiries on scientific activity have only been concentrated in the fertile social studies of science (e.g., Collins, 1983). These studies, it could be argued, represent the most recent iteration of a long-standing tradition of philosophical and humanistic inquiry on the nature of knowledge and how this knowledge is constructed. By offering an analytical perspective that reveals the tight connection between institutions, discourses, and power relations with scientific knowledge (e.g., Williams & Cook, 2016), social studies of science have provided a more grounded approach to scientific activity than the abstract perspectives previously offered by epistemology and philosophy of science (Shapin, 2008). These studies, however, have kept a distinctive trait from its predecessors, namely excluding the knower—as a human being—from the construction of knowledge (Polanyi, 1958/1962; Greene, 1966/1974). While philosophical accounts have had an epistemic focus that disregards any concrete experience of knowing (Fullerton, 1897), social studies of science have tended to subsume individual experiences into collective elements (Runyan, 2013; e.g., Shapin, 2012). Since the 1970's, a series of studies on the psychology of science have systematically tried to bridge this gap (Feist & Gorman, 2013), yet they have fallen short in producing concepts and empirical studies that account for the personal dimension of scientific activity without isolating the scientist from cultural and historical environments (Osbeck, Nersessian, Malone, & Newstetter, 2011).

This systematic neglect of the knowing person—or scientist—as a crucial element to understand scientific activity is the main shortcoming that the proposed cultural psychological aims to address. In order to do so, the first section of this article presents a brief historical sketch of the different attempts at understanding scientific knowledge construction in the 20th century: from philosophical to social to psychological accounts. The second half develops the conceptual foundations for a cultural psychology of science, i.e. a synthesis of Polanyi's (1962) personal knowledge and Valsiner's (2014) cultural psychology. This synthesis presents the scientist as a purpose-oriented person that constructively transforms culturally available meanings in order to create novel, scientific knowledge.

PHILOSOPHY OF SCIENCE IN THE TWENTIETH CENTURY

The turn of the twentieth century not only brought major social and political changes, but also intellectual ones. One in particular was the emergence of philosophical movements like logical positivism and logical empiricism (for a review see Creath, 2014), which have had a major impact in the understanding of science. Following the original project of the Enlightenment (Carus, 2007), philosophers conforming the so-called Vienna Circle, like Carnap (1928/1967), Ayer (1936), or Hempel (1950), applied rigorous logical analyses to determine the verifiable nature of statements made by empirical sciences. For decades, the main trend within this approach was *verificationism*, i.e. the strict application of the verifiability principle (Misak, 1995), which establishes that "[i]n order to be meaningful, a hypothesis must be such that there is in principle an experiment or observation which would verify it or show it to be true or false" (p. viii). Verificationism, however, was harshly criticized by Popper (1934/1959), who—using the same terms of the Vienna Circle—managed to logically demonstrate *falsificationism* as a more appropriate criterion to demarcate what is science and 'non-science'. In Popper's words: "[scientific systems'] logical form shall be such that it can be singled out, by means of empirical tests, in a negative sense: *it must be possible for an empirical scientific system to be refuted by experience.*" (p. 18, emphasis in the original) Therefore, either in its verificationist or falsificationist form, the philosophical analysis of science placed special emphasis on the scientific method, since the way in which scientific claims are verified was considered to be the hallmark of scientific discourse[1] (Uebel, 2016). In so doing, philosophy of science assumed a prescriptive stance towards scientific activity, establishing how it should be done—from a logical perspective—rather than describing how science is actually done by scientists. Therefore, philosophical accounts of science have little to do either with how real people construct knowledge and do science (Fullerton,

[1] An enormous amount of the effort of logical positivists and empiricists was devoted to lay the foundations of a 'proper'—i.e. logically grounded—language for science (e.g., Wittgenstein, 1922/1983). Thus much of the works made by philosophy of science during the early 20th century are tightly connected with the developments of analytic philosophy in particular, and philosophy of language at large. This issue was not addressed here since it considerably exceeds the scope of this paper.

1897), or how these processes are embedded in institutional, social and historical contexts (Knorr-Cetina, 1981).

Given the former emphasis, it is interesting to note how, from within the philosophy of science, emerged a historicist perspective like the one proposed by Kuhn (1962). In his *The Structure of Scientific Revolutions*, Kuhn parted from earlier positivistic views by questioning the assumption that scientific progress is a continuous addition of scientific truths to already stated truths. On the contrary, through a historical analysis of science, Kuhn (1962) proposed the existence of 'normal' periods of science in which knowledge accumulates, but also of 'revolutions' that involve deep revision of the existing disciplinary matrix, or paradigm. These paradigms are the "shared theoretical beliefs, values, instruments and techniques, and even metaphysics" (Bird, 2013, p. 6) to which the relevant scientific community is highly committed. Contrary to Popper's (1959) proposal, Kuhn (1962) considers that scientists are 'conservative' since they avoid revolutions, ignoring or explaining away anomalies—i.e. falsifications—as much as possible before replacing their paradigms. Therefore, Kuhn's (1962) analysis not only offered an alternative narrative about the development of science, but more importantly he brought to the fore the idea that science is open to be analyzed in social and historical terms[2]. The latter does not imply that Kuhn considered the development of science as determined by elements external to science itself (Kuhn, 1992; Shapin, 1995). Yet his suggestion that 'extra-scientific' factors have an impact on the election of new paradigms[3] was crucial for some sociologists and historians of science to propose that scientific activity is also determined by socio-political factors (Bird, 2013).

SOCIAL STUDIES OF SCIENCE AND SOCIOLOGY OF SCIENTIFIC KNOWLEDGE

The idea that scientific activity is tightly connected to the social and cultural environments, however, is far from being original to Kuhn (1962). In fact, it could be traced at least 30 years earlier to the works of Fleck (1935/1979) and Merton (1938, 1972). Kuhn (1962), nevertheless, helped in the formalization of science and technology studies in general, and the socio-historical studies of science in particular (Hess, 1997). Thus, in the 1970s, both the *Social Studies of Science* journal and the *Society for Social Studies of Science* (4S) were founded on the

[2] Determining the full impact that Kuhn's (1962) work has had over Western thinking is really hard to determine. Within philosophy of science, it could be argued that many of his contemporaries developed critical approaches of science that conveyed equally radical critiques to the logicist perspective; Polanyi (1962), Lakatos (1968), and Feyerabend (1975), to name a few. Yet the impact that the *Structure* reached *beyond* philosophy of science is what makes Kuhn's (1962) work contribution so innovative.

[3] According to Bird (2013), Kuhn was also influenced by Gestalt psychology, particularly in his description of how paradigm changes transform the very perception of phenomena and facts that scientists have. The consequences of this psychological angle, however, are definitely minor than those of the socio-historical turn of science.

grounds that scholars from "many disciplines have begun to show increasing interest in the social characteristics of science and technology, the political and economic influences affecting scientific and technological development, and the impact of science and technology on the condition of modern society." (Editorial, 1971, p. 1) This area of studies brought together contributions from several disciplines, like anthropology (e.g., Latour & Woolgar, 1979), history (e.g., Schaffer & Shapin, 1985), and especially sociology (e.g. Knorr-Cetina, 1981). Among these trends, the sociology of scientific knowledge (SSK) (Collins, 1983) has been the most influential one for STS at large (Hess, 2001). In the view of Shapin (1995), "[w]hile traditional sociology of knowledge asked how, and to what extent, 'social factors' might influence the products of the mind" (p. 289), sociology of scientific knowledge "sought to show that knowledge was constitutively social" (p. 289). While this approach opened many novel lines of inquiry—e.g., science funding, institutional micro-politics, editorial practices, etc.—, its 'radical' orientation towards a completely social understanding of science sparked negative reactions, notoriously the so-called 'science wars' (Segerstråle, 2000). More importantly, the rise of sociology of scientific knowledge also marked a sharp break from the philosophical understandings of science above described: "SSK set out to construct an 'anti-epistemology,' (…) and to develop an *anti-individualistic* and *anti-empiricist* framework for the sociology of knowledge in which 'social factors' counted not as contaminants but as constitutive of the very idea of scientific knowledge." (Shapin, 1995, p. 197, emphasis added)

As seen, social studies of science have analyzed scientific activity exclusively at a collective level; thus disregarding any potential personal element involved in it[4]. As it is implicit in the previous quote, this resistance to consider scientists' psychological or biographical aspects could be linked to the efforts at dismantling the individualistic accounts created by philosophers of science[5] (see Runyan, 2013). Furthermore, there is also the trend within social studies of science to hold "[t]he idea that there is nothing coherently and stably to be said about the subjective element in knowledge-making, that it is inchoate, arbitrary, unstable, and endlessly varying" (Shapin, 2012, p. 172). Therefore, for Shapin (2012), the latter "excuses us [social scholars of science] from making its workings an explicitly framed topic of inquiry." (p. 172) Moreover, if social factors are considered to be the constitutive element of scientific knowledge, any personal aspect could be deemed as irrelevant even before considering it for analysis. Not surprisingly, these conceptions have led

[4] This is not to say, however, that any form of social inquiry necessarily disregards the individual experience. The sociology of the life-world—sometimes called micro-sociology—proposed by Schütz (1967) is a clear example of how the two dimensions could be integrated.

[5] Runyan (2013) describes his experience in a graduate seminar directed to historians of science as follows: "As far as I could tell, there was not much of an argument, but that social, cultural, and material studies of science were valued, and were seen as the cutting edge. Within this view, talk of biography was lumped with a discredited 'Great Man Theory of History.' From this perspective, talk of individuals and their psychology was seen as intellectually or politically regressive for overemphasizing individuals and neglecting the extent to which science is socially constructed." (p. 356)

to a scenario in which "recent literature in history and social studies of science [have] explicitly discounted the role of personal, psychological, or experiential factors in science" (Runyan, 2013, p. 356). As Mahoney (1979) declared more than three decades ago: "In terms of behavior patterns, affect, and even some intellectual matters, we know more about alcoholics, Christians, and criminals than we do about the psychology of the scientist." (p. 349)

STRIVING FOR THE PSYCHOLOGY OF SCIENCE

Given the date and the dire tone of Mahoney's (1979) statement, it is reasonable to expect that such underdevelopment of a psychological understanding of science would be a matter of past times. This is hardly the case. Despite explicit efforts for establishing a psychology of science could be found as early as the 1970's (e.g., Singer, 1971; Mitroff, 1972), it is possible to observe that proclamations of the definitive 'arrival' of this sub-discipline have been made many times since (e.g., Gholson, Shadish, Neimeyer, & Houts, 1989; Shadish & Fuller, 1993; Feist, 2008), without much success[6]. This lack of disciplinary organization, however, has not hindered the production of several empirical studies on the subject. Following the summaries made by Simonton (2009) and Feist (2012), psychological studies of science have shown a strong emphasis in studying distinctive cognitive styles (e.g., Nersessian, 2002) and personality traits (e.g., Feist, 2006a), with only minor efforts devoted to explore the concrete experiences of scientists and the role of social elements (e.g., Osbeck et al., 2011). Then, if the field has been fruitful despite its lack of organization, why is it still necessary to make the case for the existence of psychological studies of science (e.g., Feist, 2006b)?

While Feist (2012) proposes that psychology of science as a discipline is still in an 'identification' stage—previous to a proper 'institutionalization'—, two more substantive reasons could be proposed to understand the scarce impact of psychological approaches within studies of science at large. The first of them is the lack of an integrated theoretical framework, as it could be deduced from Feist's (2012) definition of the field: "psychology of science is simply the study of scientific thought and behavior" (p. 14). Both in this definition and in most of the literature (e.g., Feist, 2006b; cf. Osbeck et al., 2011) lies the implicit assumption that scientists are just a specific sub-group that could be distinguished from other scientists or 'non-scientists'. Thus, by controlling this grouping, 'independent variable', other psychological elements—cognitive styles, personality traits, etc.—should vary across the groups. In so doing, the question of how or why those assumed differences emerge is neglected (Valsiner & Brinkmann, 2016), thus increasing the volume of empirical research without a proper theoretical

[6] The short life (2008-2009) of the Journal of Psychology of Science and Technology (JPST) is a clear—regrettable—example of this trend.

understanding of the phenomenon at stake[7]. In this aspect, the difference between psychological[8] and philosophical (e.g., Polanyi, 1962) or sociological (e.g., Knorr-Cetina, 1981) studies of science is plainly evident. Moreover, reducing the full range of personal experience to a limited—quantifiable—set of psychological aspects restricts the scope of these studies and, more importantly, neglects the person of the scientist as a whole. Yet both the former and the latter shortcomings could be avoided, as the thematically-broader, qualitative research conducted by Osbeck and her collaborators (2011), and the works on psychobiography made by Runyan (e.g., 2006, 2013) show.

Besides the former, there is a thematic element that certainly has hindered the efforts of the psychology of science inserting itself within the science and technology studies community. As described above, both Simonton (2009) and Feist (2012) observed a preference of psychological studies to focus on cognitive and personality aspects. While this focus of inquiry is completely valid, it clashes with the aim of *social* studies of science—especially SSK—to overcome the individualistic and rationalistic perspectives portrayed by philosophical accounts of science. Thus, when psychologists of science conclude, for instance, that "more successful and creative scientists are metacognitive, flexible, and most likely to use the strong-inference technique of testing more than one hypothesis at once" (Feist, 2006b, p. 185), this is likely to be anathema for historians and sociologists of science. Hence, there is an impending need for putting forward the early efforts of Shadish and Fuller (1993) for creating a more social psychology of science, capable of including institutional, cultural, and historical elements within the psychological analysis of scientists. (Osbeck et al., 2011)

STUDIES OF SCIENCE, NEGLECTING THE SCIENTIST

Summarizing the ideas presented thus far, it is clear that along the 20th century emerged quite different, and certainly novel ways of conceptualizing and studying scientific activity. Thus, the turn of the century brought a new logic-philosophical understanding of science, which examined in depth how any science must empirically verify—or falsify—its theories and statements in order to certify their truthfulness. In so doing, scientific activity was depicted as nothing more than the logical, detached and systematic proving of cumulative hypothesis, following purely rational criteria. Against this aseptic and prescriptive understanding of science, a strong reaction movement composed by historians, anthropologists and sociologists emerged in the 1930s and gained definitive traction in the 1960s: the *social* studies of science. These studies, particularly influenced by sociology of scientific knowledge, put forward the thesis that social elements (e.g., power relations,

[7] Moreover, this widespread tendency of psychology (Danziger, 1990) promotes the production of pseudo-empirical research (Smedslund, 2008, 2016).

[8] Here is necessary to set aside the work made by Osbeck and her collaborators (2011), who state from the outset that their study was conducted using activity theory as theoretical framework.

ideological discourses, funding, etc.) are not merely related to scientific knowledge but are actually constitutive of it. In so doing, they have systematically disregarded any personal, psychological or biographical related to scientific activity. As a consequence of this neglect towards the personal experience of scientists, a number of scholars have made seminal contributions to establishing a psychology of science over the last four decades. Their emphases, however, could be seen just as an extension of both cognitive and personality psychology into a new group of subjects: scientists. Thus, the psychology of science has been prolific in creating empirical studies regarding cognitive styles and personality traits, but has yet to develop a theoretical framework for understanding the whole of the psychological experience involved in being a scientist. At the same time, these studies have paid little attention to inquire how these psychological elements are related to social and cultural environments. By so doing, they have to some extent reenacted the image of scientists portrayed by philosophy of science, namely a purely rational individual isolated from anything social or worldly influence. Taken together, these two factors—lacking a theoretical framework and individualism—have certainty contributed both in the slow development of psychology of science and in the scarce impact over science studies at large.

Taking into accounts these shortcomings, in the following section an integrative theoretical framework for conceptualizing and studying the psychological, personal aspects involved in scientific activity is proposed: a cultural psychology of science.

THEORETICAL GROUNDS: CULTURAL PSYCHOLOGY

The general psychological theory in which this proposal is framed is cultural psychology (Cole, 1998; Shweder, 1990, 1999; Valsiner 2007, 2014). Rather than a sub-discipline within empirical psychology that looks for differences between different cultures—which is the case for *cross*-cultural psychology (e.g., Daniel, Schiefer & Knafo, 2012)—, cultural psychology "orients itself to the study of higher psychological functions—those functions that entail the use of human will, intentional construction of meaning." (Valsiner 2014, p. 17). Therefore, rather than focusing on the study of cognition or behavior (e.g., Feist, 2006b), cultural psychology is a science of *human conduct*, i.e. "actions in the world that are made meaningful by the acting human being" (Valsiner 2014, p. 17). Yet these meaningful actions are not done isolated individuals in an abstract realm[9], on the contrary they are inherently woven into a cultural fabric (Valsiner, 2007) and oriented towards interacting with fellow human beings (Cornejo, 2008). Shweder (1990) aptly describes this unity between the personal and the cultural:

[9] Ironically, the notion that cultural environments are constitutive role for psychological experience is more than centenary, as it was the basis of the *Völkerpsychologie* (see Diriwächter, 2004) proposed by 19th century authors like Lazarus, Steinhal, or Wundt (Valsiner, 2012). Even if this idea is commonsensical and acknowledged by most psychologists, as Cole (1996) notes, the discipline has systematically failed in integrate it seriously.

> The basic idea of cultural psychology is that, on the one hand, no sociocultural environment exists or has identity independently of the way human beings seize meanings and resources from it, while, on the other hand, every human being's subjectivity and mental life are altered through the process of seizing meanings and resources from some sociocultural environment and using them. (p. 74)

This *inclusive separation* (Valsiner, 1998), which implies a "mutual constituting between person and the social world" (Valsiner, 2007, p. 3), is regulated through the constructive *internalization* and *externalization* of cultural meanings (Valsiner, 2014). These transformative processes make possible that "while the 'incoming [cultural] messages' can be similar for different individuals, the ways in which these messages become transformed and reconstructed is necessarily personally unique." (Valsiner, 2007, p. 40) Therefore, cultural psychology goes beyond both traditional behaviorist or cognitivist approaches in psychology, which ignore the meaningful nature of human actions, and also radical forms of social constructionism that reduce personal experience to collective elements.

As a general psychological framework, cultural psychology addresses the main shortcomings of studies of science identified above: the individualism implied in philosophical accounts; the neglect of personal aspects made by social studies; and the cognitive and personality reductionism present in most psychological studies of science. In doing so, cultural psychology proposes a notion of persons and psychological phenomena that fits the general complexities of studying scientific activity *including* the perspective of the persons behind it. Due to its general character, however, this psychological approach does not address the particularities of the psychological experience involved in doing science and creating scientific knowledge. Therefore, in order to bridge this specificity gap, the ideas of cultural psychology are to be complemented with a different conceptual framework: the theory of personal knowledge (Polanyi, 1962).

THEORETICAL GROUNDS: PERSONAL KNOWLEDGE

In his *Personal Knowledge*, Polanyi (1962) aimed to change the long-standing assumption of modern Western thinking (Greene, 1974) that any "passionate, personal, human appraisal" (Polanyi, 1962, p. 15) must be removed from science at all costs in order to keep it objective. According to him, this necessity follows from "the conception of natural science as a set of statements which is 'objective' in the sense that its substance is entirely determined by observation" (Polanyi, 1962, p. 16). However, as he consistently shows, either in mathematical formalism, in appraising of probabilities, or in finding orderly pattern of events—and ultimately in every form of skillful knowing and doing—there is a fundamental personal, tacit component (Polanyi, 1968) upon which those observations rely. "Such is the personal participation of the knower in all acts of understanding" (Polanyi, 1962, p.

vii); yet "this does not make our understanding *subjective*" (p. vii) as it will be shown.

The personal component proposed by Polanyi (1962) is based on his theory of *tacit knowledge* (1966, 1968), which proposes a 'dual' structure of our psychological experience, namely a *focal* point of awareness and a field of surrounding elements—or particulars—of which we have only a *subsidiary* awareness. An example of this, according to Polanyi, is language: when we read a sentence we do not focus in the single, written words but in the meaning conveyed through that sentence. Thus, in this case the words used are *subsidiary*, or tacit, elements that establish a functional relation from which emerges a *focal* point, i.e. the meaning of that expression. In establishing such relation, the role of the person is crucial as: "the knower integrates the subsidiaries to a focal target—or that the subsidiaries have a meaning to the knower which fills the center of his focal attention" (Polanyi, 1968, p. 31). Therefore, meaningful articulations of subsidiary elements—be it in language, perception, or knowledge—are only possible because of a person oriented towards a purpose articulating them (Polanyi, 1966).

Thus, the tacit knowledge is organized in triadic relations between subsidiary particulars, its focal target, and the knower that links the first to the second (Polanyi, 1968). Yet, these relations are neither static nor fixed but inherently dynamic, since the "triad will disappear if the knower shifts his [or her] focal attention away from the focus of the triad and fixes it on the subsidiaries." (Polanyi, 1968, p. 31) Therefore, if the focus is moved to a particular subsidiary element, this element is no longer subsidiary but instead the new focal point, which in turn is a new articulation of other elements that are subsidiary to it. This element, for Polanyi (1968), determines the ultimately *unspecifiable* character of knowledge, since the knower cannot pinpoint every single subsidiary particular present in a given articulation as they refer in turn to other elements[10].

These two elements—the role of the knower and the unspecifiable character of knowledge—are crucial for understanding the construction of scientific activity in the personal perspective proposed by Polanyi (1962). The former, on the one hand, implies that the *meaningfulness* of a scientific observation or an abstract modeling is determined by the articulation of the apposite subsidiary particulars—theories and methodologies, as well as previous experiences—made by the scientist. The latter element, on the other hand, makes it difficult for the knower to exhaustively determine all the elements supporting his or her articulation; as Polanyi (1962) observes: "the curious thing is that we have no clear knowledge of what our presuppositions are and when we try to formulate them they appear quite

[10] Moreover, as Polanyi (1968) notes, the subsidiary awareness is not binary—as in the case of the focal—but rather gradual. This gradual character implies that while there is a more explicit awareness of certain subsidiary elements, there are other elements of which there is only possible to grasp a liminal awareness. For instance, the bodily functions that are subsidiary to speech.

unconvincing." (p. 59) Taken together, these elements substantiate the central claim of Polanyi (1962), namely that: "In every act of knowing there enters a passionate contribution of the person knowing what is being known, and that this coefficient is no mere imperfection but a vital component of this knowledge" (Polanyi, 1962, p. viii).

Yet, how is the former theorization advocating for objective knowledge if every aspect of it seems relative to the subject constructing it? For Polanyi (1962), scientific activity is different from other forms of knowing as in it "[t]he effort of knowing is thus guided by a sense of obligation towards the truth: by an effort to submit to reality." (Polanyi, 1962, p. 63) In this sense, even if the scientist is actively articulating a number of particulars—for instance, the output of a statistical analysis—"[t]he act of personal knowing can sustain these relations only because the acting person believes that they are apposite: that he [or she] has not made them but discovered them." (p. 63) Far from self-deception, such belief represents the basic commitment that scientists must establish in their quest for establishing objective knowledge, i.e. pursuing their inquiries using those theories, methodologies, data, etc. that are pondered as the best available. Was Newton deceiving himself when he initially proposed that gravitation was based on ether's density? (Rosenfeld, 1969) Or was he just using the best scientific conceptual repertoire available at his time?[11] Polanyi (1962) concludes that: "It is the act of commitment in its full structure that saves personal knowledge for being merely subjective." (p. 65) Moreover, if this personal commitment for achieving true knowledge is replaced by a blind acceptance of the procedures of the scientific community (cf., Latour, 1987), then science becomes nothing more than a mere repetition of what was already established as valid; thus dramatically reducing the possibility of groundbreaking innovations (Polanyi, 1962).

In sum, Polanyi (1962, 1966, 1968) certainly succeeds in creating a person-centered approach to the construction of scientific knowledge, which accounts for the crucial, committed role of the scientists without losing the scientific spirit of creating objective knowledge. The major shortcoming of Polanyi's conceptualization, however, is how isolated the knowing person is portrayed—either from fellow scientists, scientific communities, or historical backgrounds. While Polanyi does address the former elements (see 1962, Chapter 7; 1968, p. 34), these are tangential remarks rather than proper, substantive elaborations on the issue. In so doing, Polanyi (1968) seems to assume that subsidiary particulars are elements passively available for being articulated by the knower, thus neglecting their origin and the process by which they became available for that particular person. At the same time, Polanyi's (1962) conceptualization provides little insight on how the meaningful

[11] The example of Newton brings forward the discussion of what means that certain knowledge is 'objective'. As Daston and Gallison (2007) systematically show, what has been deemed as 'objective' has dramatically changed along history. This argument makes clear that, along with the personal commitment for making scientific discoveries, there necessarily is a broader community in which such inquiry is framed. Regrettably, this issue exceeds the scope of this work and so it is not be further addressed.

knowledge articulations made by personally-committed scientists are circulated and discussed with fellow scientists in order to create scientific consensus. As it will be proposed in the following, it is necessary to synthetize these ideas with those of cultural psychology above described in order to bridge these gaps and thus create a comprehensive theoretical framework.

A NEW SYNTHESIS: CULTURAL PSYCHOLOGY OF SCIENCE

The cultural psychology of science proposed here shares a common principle with both cultural psychology and personal knowledge theory: the centrality of the scientist, as a human being, to understand how is scientific knowledge created. In this sense, the knowledge constructed by a scientist is assumed to be, first and foremost, *meaningful* and *purposeful* for that particular person. Thus, the scientist is the ultimate responsible of articulating together different concepts, theories, analyses, data, observations, etc. in coherent scientific statements, projects, and programmes. Furthermore, the scientist articulates these (subsidiary) elements following the orientations that he or she is certain that are the best possible, or available, for addressing the issue at stake; and thus leaves a tacit imprint that lies at the very core of his or her work. Here there is a necessary developmental angle too, as the chosen way of doing science could only be understood looking at that scientist's personal trajectory. Above this, however there is a distinctive, overarching commitment of all those who do science for discovering something 'hidden' in reality, in other words, to create knowledge that has a general validity. As soon as such commitment is broken, we enter in the notoriously different realm of scientific deception (cf., Rommer, 2015), or fraud (e.g., Stapel, 2016).

While the individual person is considered here to be the constructive articulator of knowledge, this is always and necessarily done along with fellow scientists, by being a member of a—local and global—scientific community, by working within specific institutions, and by participating in broader cultural and historical environments. Far from abstract 'influences', the social environments in which the scientist is embedded—group, community, institution, society, and history—are the sources for the particular cultural meanings out of which he or she articulates knowledge. These elements, importantly, vary from being very explicit—e.g., what are the valid methodologies for a discipline—to more tacit—e.g., political implications of scientific activity—to almost unnoticeable—e.g., the cultural role of science in society; thus, they are all present as subsidiary elements supporting focal knowledge articulations. Yet, these cultural meanings are not merely reproduced by the scientist, as they are constructively internalized and selectively externalized. In this sense, scientists are considered to be *inclusively separated* from their cultural environments; for they are constitutively connected to them, yet they are not mere instances in which these cultural meanings are echoed. Moreover, these different social environments are the arenas in which personal articulations join the efforts made by fellow scientists in order to re-construct the corpus of ideas and evidence that constitute a scientific discipline. The sole observation, or direct experience, of

how scientists of any sort are in permanent interaction with fellow scientists, working and communicating with them; or how they are trained in a discipline in which they later participate; or their active membership of institutions, like universities or research centers; or the influence that particular historical or political events have on the development of a discipline; any of them should suffice to make this point clear enough.

The fact that scientists are embedded in multiple cultural environments, however, does not imply that they are fully restricted to their rules, principles, and assumptions. On the contrary, these cultural meanings enable them to produce knowledge that goes beyond what has already been established by scientific communities—even if those very same communities sometimes resist that novelty. In fact, the production of *novel* ideas and empirical findings, rather than the *re*production of what is already known, is an overarching goal of science; the latter, as Polanyi (1962) notes, is the task of encyclopedists, not of scientists. Thus, in the constructive articulation of the new, the commitment of particular scientists for achieving—what personally is envisioned as—true knowledge in ways that dissent from the established consensus is crucial. Maybe the most obvious example of this is the life and work of Galileo, whose "strong and increasing desire to find a *new* conception of what constitutes natural philosophy and how natural philosophy *ought to be* pursued" (Machamer, 2014, p. 16, emphases added), led him to face harsh resistance not only from fellow physicists and astronomers, but also from the main cultural institution of his time, the Catholic church. Despite this opposition, which even led him to live his last years under house arrest, he never dropped the principles, methodologies, and discoveries that ultimately shaped the modern conception of astronomy, physics, and science at large. Yet, he never relinquished to them because *he* was certain of their validity; even if this implied to be opposed by most of his scientific and cultural environment.

Summarizing, the core of a cultural psychology of science is the centrality of an active, purpose-oriented scientist that constructively transforms culturally available meanings in order to create novel, objective knowledge. Even if the former does not conform to the standards set by the socio-cultural environment.

CONCLUDING REMARKS

This paper proposed a new theoretical framework for the psychological understanding of scientific activity: a cultural psychology of science. For this purpose, a brief overview of the literature on philosophy, sociology, and psychology of science was presented in order to describe previous conceptualizations and studies on science. Through this review was possible to observe both the development of the field and its shortcomings, particularly the neglect—even by existing psychological accounts—of the personal experience of scientists. In order to address the former, a theoretical framework based in cultural psychology and the notion of personal knowledge was proposed as a new general frame for psychological studies of science. This approach proposed the centrality of the

knowledge-making person—in this case the scientist—to understanding scientific activity and its product, scientific knowledge. Moreover, the proposed theoretical framework makes possible to keep the social and cultural nature of scientific activity without neglecting the personal commitments and intellectual passions in which this activity is also based. Furthermore, these personal commitments appear as the main driver of those scientific advances that require going beyond the established consensus of a scientific community. Hence, this whole person-centered view of scientific activity is what I have called a cultural psychology of science.

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CHAPTER 5. HUMANS OF ECONOMICS: THE SOCIAL ROLE AND PERSONAL DIMENSIONS OF ECONOMISTS IN CHILE

Carré, D. (2017). Humans of Economics: The Social Role and Personal Dimensions of Economists in Chile. *Forum: Qualitative Social Research*, Under review.

HUMANS OF ECONOMICS:

THE SOCIAL ROLE AND PERSONAL DIMENSIONS OF ECONOMISTS IN CHILE

David Carré

Abstract: In recent decades, the rising influence of economists in Chile has been critically addressed by several social studies of science. However, the historical and sociological focus of these works has tended to collapse the diversity of economists' views and experiences into collective elements. The present article aims to address the former shortcoming by providing a qualitative, cultural psychological inquiry on the subject. For this purpose, an interview-based study with economists in Chile was conducted. The thematic analysis and the case study performed on this material accounted for the existence of quite different perspectives among participants regarding the social influence of economists, disciplinary elements, and their personal involvement in this scientific activity.

Key words: *Chilean economists, Cultural psychology, Social studies of science, Psychology of science, Thematic analysis, Case study*, *Personal perspective*

1. INTRODUCTION

In a bold statement, John Maynard KEYNES (1936/2007) wrote almost 80 years ago: "Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some *defunct* economist." (p. 383, emphasis added) Setting aside any doubt on what he meant, KEYNES continued: "The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else." (p. 383) These quotes, it could be argued, represent an opinion from a man that—being a renowned political economist himself—grew too complacent when pondering the relevance of his and his colleagues' work[1]. Thus, it is nothing but surprising to find scholars who consider that KEYNES' position actually falls short to describe the actual influence of economists in Latin America (e.g., MARKOFF & MONTECINOS, 1993). In these authors' (MONTECINOS &

[1] In fact, in a way that probably few social scientists could equal, KEYNES and his ideas had a major impact in how the world was shaped in economic terms after World War II: as one of the crucial participants of the Bretton-Woods agreement, he took part in creating the first global monetary order from which institutions like the IMF and the current World Bank emerged (see DAVIDSON, 2009).

MARKOFF, 2012) view: "Keynes' comment (…) refers to a different time; by the end of 20th century, economists exerted a *visible* power over economies and turned into the *practical* men (and, sometimes, women) of the hour" (p. 63, emphasis added). While the latter position might appear as an overstatement about the situation in Latin America, it actually fits the characterization made by the literature of one specific country in the region: Chile.

According to VALDÉS (1995), the social and economics reforms that—during the 1973-1990 dictatorship—transformed Chile into a radical form of liberal capitalism cannot be understood without the select group of economists that designed and implemented these policies: the *Chicago Boys*. GÁRATE (2012a), extending the former point, proposes that the influence of economists in Chile did not decay with the end of the dictatorship; on the contrary, they became crucial actors to make the transition between dictatorship and democracy possible. Moreover, ARIZTÍA (2012) argues that the technical language of economics—almost private to economists—became the "*lingua franca* of the political transition" (p. 13), and also the backbone of the national model of development. Connected to the latter point, SILVA (2010) proposes that, since the 1990's, economists in Chile have secured—through the Central Bank and the Treasury—the technical control of the debate on economic policies and social expenditure. Furthermore, as OSSANDÓN (2011) reveals, this influence has reached beyond strictly economic areas; for instance, by reorganizing the national healthcare system through for-profit market logic. In fact, the technical role played by economists in Chile has become so preponderant that it has turned them into ubiquitous expert advisors for any public policy (GÁRATE, 2012b); an element that has ultimately hampered the democratic governance by narrowing the social debate just into an economic discussion (HUNEEUS, 2014; cf. CARRÉ, in press). Finally, through an illustrative comparison with the case of Argentina, UNDURRAGA (2014) shows how distinctive the role of economists in the contemporary Chilean society is.

Therefore, far from an isolated position, the view of MONTECINOS and MARKOFF (1993, 2012) actually represents the academic consensus on the subject, namely that: "During the second half of the 70's and the 80's, the status of economists suffered a radical transformation in Chile." (GÁRATE, 2012b p. 109) This transformation ultimately expanded the traditional role of economists in the country: from a research-oriented academic, who occasionally advised the government on economic issues (SILVA, 2010), to technocrats and *technopols* (DOMÍNGUEZ, 1997) directly and permanently involved in the public debate[2]—regardless of whether the topic was related to the economy or not[3].

[2] This situation certainly challenges the clear distinction that WEBER (1917/2004a, 1919/2004b) drew between science and politics.

[3] "Economists are no longer satisfied with having control of most of the technical agencies of the state. Rather than focusing in managing central banks and planning offices, they have expanded their intellectual and bureaucratic control over the whole state apparatus, including

Thus, the landscape of economics in Chile also changed. As noted by several authors (e.g., GÁRATE, 2012b; SILVA, 2010, 2012), the expansion of the economists' role was supported by the emergence of a new kind of institution during the 80's and 90's: *think tanks*. These 'independent' organizations have given economists an intermediate platform—in between academia and the state apparatus—for working full-time on compiling available academic research, and using it to participate in the public debate. The influence coming from think tanks in Chile, however, is far from neutral since they are mostly advocacy institutions, often linked to political parties, rather than 'universities without students' (see GÁRATE, 2012b, p. 116, Figure 1). Nonetheless, this intermediate position has allowed economists working at think tanks to focus on research without the rigor and slow-pace of academia, and also to participate in the debate regardless of sharing the political orientation of the government in office. Therefore, the landscape in which economic knowledge is created and distributed in Chile has certainly changed during the recent decades. Nowadays, alongside traditional universities devoted to conduct high-impact research, there are also think tanks oriented to translate this research into concrete aspects of the social debate. At the same time, increasingly more governmental agencies are directly run by economists, or have their work oriented through economic indicators. Hence, from these quite different positions, economists in Chile have become the ones to give, through their technical and scientific knowledge, direction and validation to the social discussion and to political actions alike.

The transformation experienced by economics and economists in Chile is also a clear example of the tight, entangled relation between the knowledge created by social sciences and the human phenomena it addresses[4]. Thus, the role of economics and economists in Chile has become a major topic of inquiry for Science and Technology Studies (STS)—as the ample literature referenced above and other sources[5] show. Accordingly, most of these works have gone beyond stating or describing this relevance, looking into the actual political and institutional conditions under which economists and economics have become so influential. However, HEREDIA (2011) criticizes these studies for having relied on—and thus reinforced—an overgeneralization: that of the *almighty economists*. In practice, this means that the studies previously mentioned have portrayed economists in Chile as if having an absolute social power, automatically granted by their technical qualification; which, contrary to the aim of these studies (e.g., ARIZTÍA, 2012, p.

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poverty programs, regulations for the labor market, healthcare, social security, education, and even foreign policy" (MONTECINOS & MARKOFF, 2012, p. 66).

[4] As ARIZTÍA (2012) aptly says: "Be it their books, concepts, models, narratives, hypotheses, public policies, minutes, or councils; or their experts, intellectuals, technopols, academics, or advisors; the products and actors of social sciences do not dwell within classrooms and campuses only: they move and act all over the world they try to understand and explain." (p. 9)

[5] Particularly the blog *Estudios de la Economía* [Studies on Economics] (https://estudiosdelaeconomia.wordpress.com/), which receives regular contributions from most of the authors referenced.

15), amplifies the economists' role. At the same time, and more importantly for the present article, this portrayal has collapsed the diversity of Chilean economists into a broad, uniform label (HEREDIA, 2011). Even when particular cases have been addressed by these studies (e.g., OSSANDÓN, 2011), this has been done leaving aside any element—and any cases—that does not fit the prototype of a neoliberal, technically-oriented economist. In so doing, the existing literature on this topic has mostly operated under the assumption that economists, as a *uniform* collective, follow the prototype of the *Chicago Boys* in the 80's, or the early 90's Heads of Treasury (viz. Alejandro Foxley, Eduardo Aninat)—i.e. truly almighty economists. Therefore, any potential personal elements shaping the technical and scientific work of economists that escapes this collective characterization—like personal interests or views on the discipline—have been so far disregarded and collapsed under the 'almighty' way of being an economist.

Regrettably, disconnecting scientific work and scientific knowledge construction from any individual or personal dimension seems to be a consistent trend in STS at large, and particularly within social studies of science[6]. As SHAPIN (2012)—a leading figure in the latter field—notes, these studies share the "idea that there is nothing coherently and stably to be said about the subjective element in knowledge-making" (p. 172), which makes personal elements fit "for its supposedly contaminating task and also excuses us from making its workings an explicitly framed topic of inquiry" (p. 172). This observation not only confirms the tendency to exclusively address the collective dimension of the phenomenon—as exemplified by the studies on Chilean economists—, but also reveals the scant attention that studies of science have paid to the long-standing efforts for developing a psychology of science (e.g., MITROFF, 1972a, 1972b; MAHONEY, 1976; GHOLSON, SHADISH, NEIMEYER & HOUTS, 1989; OSBECK, NERSESSIAN, MALONE & NEWSTETTER, 2011; PROCTOR & CAPALDI, 2012; FEIST & GORMAN, 2013). Beyond a disciplinary divide, such disregard could be attributed to the individualistic approach that most of these psychologically-oriented studies have adopted. Namely focusing mostly in cognitive features and personality traits, which give the impression of a scientist isolated from any social or cultural influence. The latter, however, does not provide sufficient justification for claiming that the person of the scientist is *irrelevant* to understand the creation, circulation and social use of scientific knowledge[7]; or worse, labeling it as a source of error, as

[6] The notorious exceptions here are intellectual biographies, like the ones made by Ray MONK (e.g., 1991, 2001). This kind of works—a minority within history of ideas and history of science—certainly shows how the intellectual production cannot be fully understand without looking at the life of the authors. The enormous amount of work required to create one of this intellectual biographies, however, limits their scope to only outstanding contributors to their fields, like Wittgenstein or Russell. This inherent limitation, regrettably, contributes to the historical trend of portraying science as an activity led by selected geniuses—viz. Grand Man theory—rather than a laborious endeavor created by the small contribution of many different persons.

[7] SEGERSTRÅLE (2000) makes an interesting historical observation about this: "What about the voice of scientists themselves, after all the objects of these studies? Unlike earlier

SHAPIN (2012) describes it. In fact, this assumption of irrelevance probably emerges from a sociological, collective-centered reasoning; for which the motivations and views on the discipline of the persons working everyday as scientists could be subsumed under their membership to specific institutions or scientific communities. While the latter undoubtedly is a relevant level of analysis—as largely shown by the literature—, it does not preclude a more granular analysis of the scientific activity at a personal, psychological level. Therefore, the question at stake is how to integrate rather than separate these two dimensions when studying scientists and their work; somehow following the lead left by POLANYI (1958/1962) when he proposed that knowledge is social constructed, but it is also personal.

1.1 THIS STUDY

Therefore, the present article aims to bridge the existent gap between the social and psychological studies of science through an empirical study that explores the personal views and experiences of a number of economists in Chile in relation to the creation, circulation and use of economic knowledge. In order to do so, a cultural psychological approach to scientific activity is adopted. This perspective primarily looks at scientific activity from the experiences and meanings that scientists, as persons living in cultural worlds, make of it. These personally meaningful experiences, as proposed by VALSINER (2014), are constantly developing and becoming meaningful *within* social and historical environments. Therefore, these personal elements could never be private constructions made in complete isolation of the social world (CORNEJO, 2008; SCHÜTZ, 1967), which certainly does not imply that this process could be reduced to an impersonal social construction. In this sense, there is no question whether personal experiences and their meanings are privately or socially determined, as they necessarily emerge from the dynamic unity between a person and its environment (VALSINER, 2007). Moreover, these meaning constructions are not expected to always be fixed and unitary, given the inherently ambivalent—and sometimes even contradictory (CARRÉ, 2017)—nature of human experiencing (VALSINER, 2014). Finally, this psychological approach is complemented with the concept of personal knowledge proposed by POLANYI (1962), which emphasizes that personal involvement is a crucial aspect of scientific activity. Furthermore, rather than a token of subjectivism, as largely assumed, the notion of personal knowledge (POLANYI, 1962) shows how the drive of each scientist for creating knowledge is actually essential for making science something more than technical reproduction.

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sociologists of science, who relied on scientists' own statements, the new science scholars largely ignored what the scientists themselves had to say about their scientific commitments and concerns, or how they judged good science from bad. It is not too much to say that a certain 'Besserwisser' approach prevailed, with the sociologists smugly overruling the scientists." (pp. 5-6)

Therefore, this cultural psychological perspective of science makes possible the observation of the *diversity* of personal views and experiences of contemporary economists in Chile. Yet *without* disconnecting these from the multiple social environments in which these views and experiences are embedded: concrete institutions with specific guidelines; the local community of economists and its rules; the global discipline of economics and its scientific practices; and the historical background of the discipline in the country. In so doing, this article looks to provide an alternative perspective to the existing studies on the role of economists in Chile, revealing a personal dimension that has been typically collapsed under institutional labels and collective generalizations. At the same time, by avoiding an individualistic approach to psychological phenomena, this work hopes to create an insight that could be better integrated with existing social studies on the subject. On this, the efforts made by OSBECK and her collaborators (2011) for producing a more *social* psychology of science seem essential to overcome the isolation and limited diffusion that psychology of science has experienced (for a historical overview see FEIST, 2012, pp. 25-26, Table 1.4).

More generally, this study hopes to be a contribution to the understanding of the transformative social processes that Chile is currently experiencing (HUNEEUS, 2014). In this sense, this work looks to open to the public and make more transparent the views of local actors that currently give shape to economics and create new economic knowledge. Therefore, this is not an effort to cast a shadow of doubt over the integrity of the scientific and technical work that economists have done in Chile—in other words, it does not try to initiate a new 'science war' (SEGERSTRÅLE, 2000). Nevertheless, this article presents a vision of the discipline and its practitioners that is much more nuanced than how it has been typically portrayed, either by the media—as dispassionate, purely data-driven mathematicians—, or by the critical literature—as technocrats avid to exert further control by using and abusing scientific rhetoric. The vision presented here, rather than pick one of these sides, focuses on what economists themselves expressed about how they acknowledge and negotiate this tension in order to define a personal position as economist. Thus, this work is neither an effort to bash the work of economists nor to flatter it. It rather tries to bring the views of economists from different age, qualification, and institutions to the fore and—based on them—rethink the crucial role that economists has played in the recent history of Chile.

2. METHODOLOGY

In order to explore the personal views and experiences of economists in Chile in relation to the creation, circulation, and use of economics knowledge, a qualitative, interview-based study was conducted. This approach was chosen following the successful way in which previous studies (e.g., OSBECK et al., 2011) have explored and analyzed the diversity of experiences and perspectives of scientists. While quantitative studies addressing this topic (e.g., CORREA-MAUTZ, 2013) have managed to attract large number of participants (close to 400), the analysis

conducted by them offers little detail about the particular experience of each participant. Thus, the election of this approach assumes certain limitations in order to achieve a more granular and meaningful understanding of the phenomenon. Hence, a series of interviews were conducted with 25 economists in Chile.

2.1 PARTICIPANTS

Participants for this study were selected following a purposive sampling strategy (LUBORSKY & RUBINSTEIN, 1995) aimed to represent the different actors of the landscape of economics in Chile described above (i.e. universities, think tanks, and government agencies). In total, 42 persons were initially contacted by e-mail, of which 25 replied and agreed to participate (17 male and 8 female). All of the participants had a degree in economics: 6 a PhD, 3 were PhD students, 13 a MSc, and 3 an Honors BSc. All of them worked full-time in a position that specifically required such qualification, and were based in Santiago de Chile. Regarding their positions, 6 participants were tenure-track professors at three different universities; 5 worked as research assistants for local branches of two international research institutions; 8 were researchers in four different think tanks; 3 worked in the division of economic studies at three governmental agencies; and 3 of them were PhD students at two local universities. The age of the participants ranged between 25 and 70 years: 14 participants were between 25 and 35 years, 6 of them between 35 and 45, and only 5 participants above 45 years of age. Table 1 summarizes this information and organizes it in a case-by-case basis.

Table 1: Participants' characterization

Participant	Characteristics				
Code [a]	*Gender*	*Age*	*Degree*	*Position*	*Institution*
A	Female	25-35	MSc	Jr. Economic Analyst	Gov. Agency 1
B	Male	25-35	PhD (S)	Student	University 1
C	Female	25-35	PhD (S)	Student	University 2
D	Male	25-35	PhD (S)	Student	University 2
E	Male	25-35	MSc	Research Assistant	Research Center 1
F	Male	25-35	MSc	Research Assistant	Research Center 1
G	Female	25-35	MSc	Research Assistant	Research Center 1
H	Male	45+	PhD	Professor	University 3
I	Female	25-35	MSc	Researcher	Think Tank 1
J	Male	25-35	MSc	Researcher	Think Tank 1
K	Female	25-35	MSc	Researcher	Think Tank 2
L	Female	35-45	PhD	Professor	University 3

M	Male	25-35	Hon. BSc	Researcher	Think Tank 3
N	Male	25-35	MSc	Research Manager	Research Center 1
O	Male	45+	PhD	Professor	University 1
P	Male	35-45	Hon. BSc	Economic Analyst	Gov. Agency 2
Q	Male	35-45	Hon. BSc	Economic Analyst	Gov. Agency 3
R	Male	25-35	MSc	Researcher	Think Tank 2
S	Male	45+	PhD	Professor	University 1
T	Female	35-45	MSc	Senior Researcher	Think Tank 2
U	Male	25-35	MSc	Research Assistant	Research Center 2
V	Female	45+	PhD	Professor	University 2
W	Male	35-45	MSc	Senior Researcher	Think Tank 4
X	Male	45+	PhD	Professor	University 2
Y	Male	35-45	MSc	Research Manager	Think Tank 3

[a]: The code assigned to each participant only lists them alphabetically following the chronological order in which they were interviewed, and so it has no relation to the given names of the participants.

Only 4 of the participants (C, D, H, V) were not born in Chile, but they had lived for at least 2 years in the country and were either native speakers or fully proficient in Spanish.

2.2 DATA COLLECTION

All the participants were contacted and interviewed between 2014 and 2015, in a process that comprised 27 in-depth, semi-structured interviews (2 participants were interviewed twice given their availability). These interviews were conducted in person by the author at the working place of the participants, except for three of them that took place in public spaces as per participants' request. They were audiotaped after receiving the explicit consent of participants and upon agreeing on the anonymous handling of their information thorough the research process. No form of reward or compensation was offered or given following participation.

Participants were briefed about the aim of the study and the background of the researcher both in the initial contact and at the beginning of the interview. An open-ended, semi-structured script was used to prompt participants to address the following topics along the interview: studies and career path; current position and expected projection; personal interest in economics; historical and current role of economists in Chile; personal experience working as economist. This script, however, was used in a flexible way, adapting it to the particular developments of each interview. Closed questions and interpretations by the researcher were avoided as much as possible in order to let the participants express their views as they found fit. However, following ALVESSON (2003), participants' positions were regularly confronted with counter-positions expressed by other participants, in order to

promote an elaboration of their views beyond the simple statement of information. In general, participants were talkative and open to address any topic or question that was asked. Likewise, they were very clear to explain any technical detail that the researcher did not know. It is also worth mentioning that close to half the participants were of similar age to the author, which in most of these cases led to a certain atmosphere of peer-to-peer interaction—as noticed both in the constant use of slang and specific cultural references. Regarding the interview situation, all but 3 of the interviews were conducted in private, noise-free rooms. Thus there were no noticeable interruptions or distractions during the interviews. Regarding their length, interviews lasted 62 minutes in average, with only 4 of them lasting for less than 45 minutes.

2.3 DATA ANALYSIS

The analysis of these interviews was done following a two-step analysis, which involved an aggregated thematic analysis (BRAUN & CLARKE, 2006) followed by the analysis of a single case (HARRISON, BIRKS, FRANKLIN & MILLS, 2017; SALVATORE & VALSINER, 2010). This synthesis of aggregate and single case analysis is based on the work done by WAGONER (2009) on how different methodologies make possible (or not) to capture the subtleties of psychological phenomena. As this author concludes, "working between single cases and the aggregates can provide invaluable resources for both interpreting single cases and understanding the nature of the variation found at the aggregate level." (p. 118) Therefore, this analytical framework offers both a panoramic perspective of the broader themes addressed by the participants, but also provides the option of a more granular perspective capable of observing the uniqueness of how different participants articulate these themes. Hence, it fits squarely with the aim and orientation of the present work.

Thus, the interview content was transcribed using the software *ELAN* (version 4.9.4), and then content-coded using the software *nVivo for Mac* (version 11). The coding and the analysis of this data were performed through a *thematic analysis*, along the guidelines[8] proposed by BRAUN and CLARKE (2006). This form of qualitative analysis for the interview material was chosen due to the combination of flexibility and depth that offered. Following these guidelines, it is important to clarify here the epistemological grounds in which the analysis was performed. First, even if the analysis conducted had a descriptive spirit, it certainly was analyst-driven, as the pre-existing topics of interest and focus of the interviews make impossible to claim a passive role of the researcher. Second, this analysis followed a 'semantic approach', i.e. a "progression from *description*, where the data have simply been organized to show patterns in semantic content, and summarized, to

[8] Namely: familiarizing with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and finally producing a report (BRAUN & CLARKE, 2006, p. 87, Table 1).

interpretation, where there is an attempt to theorize the significance of the patterns and their broader meanings and implications." (BRAUN & CLARKE, 2006, p. 13) Therefore, the accounts given by participants were taken as valid and trustworthy meaningful constructions—even if they were ambivalent or contradictory—, yet they were analyzed in reference to the position of the participant in his or her cultural environment. Hence, this analytic approach fits the theoretical background used in this article, which conceptualizes persons as active meaning-makers of their cultural environment.

After the thematic analysis, a single case was conducted, following WAGONER (2009) two-step approach. This second step was aimed to gain insight of how the general themes addressed in the first step were articulated together by particular participants, following their own personal views and experiences. For this purpose, the case of participant K was chosen given the wide of range of topics that this participant addressed in her interview, but especially due to the explicit elaboration made by her about the intertwinement of her normative views and her work as economist at a concrete institution. Given this intricate topic of interest, a case study approach (HARRISON et al., 2017) appeared as a sound option since it is "most suitable for a comprehensive, holistic, and in-depth investigation of a complex issue (…) in context, where the boundary between the context and issue is unclear and contains many variables." (p. 28) Therefore, far from 'anecdotal evidence' (cf., SALVATORE & VALSINER, 2010), the analysis of this single case provided a general perspective of the ways in which participants weaved together the above themes, turning them into personal positions rather an abstract issues (CARRÉ, 2017).

In the following section, the main results obtained through this two-step analysis are presented. In the first place, the results of the thematic analysis are shown; for the sake of brevity, no more than two extended excerpts are included per sub-theme. Following this, the case of participant K is analyzed in depth. These excerpts are translations since all the interviews were conducted in Spanish.

3. RESULTS

3.1 THEMATIC ANALYSIS

The thematic analysis performed revealed many different topics addressed by participants, which were organized in themes and sub-themes in a hierarchical way, as Figure 1 shows:

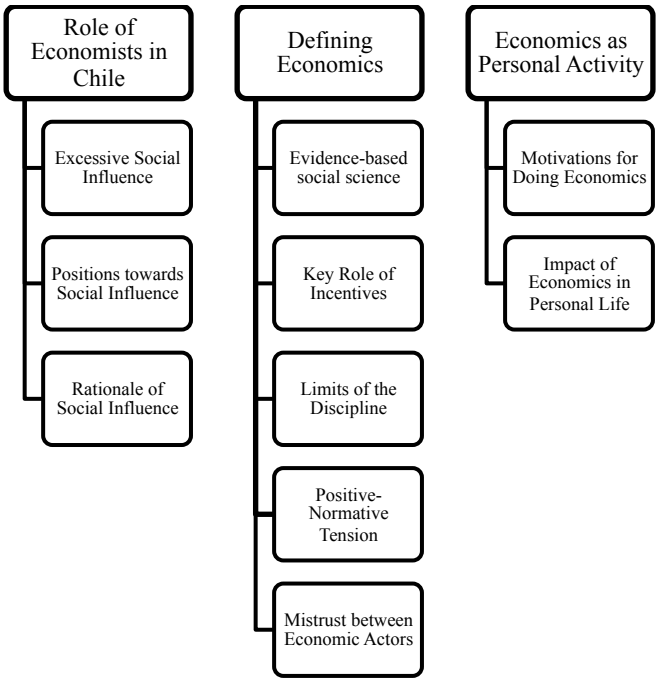

Figure 1. Hierarchy of themes and sub-themes

In the following, interview excerpts representing the different perspectives that participants had on these various topics are presented, starting with the role of economists in Chile, then their definitions of economics, and finally on how they perceived economics as personal activity.

3.1.1 ROLE OF ECONOMISTS IN CHILE

3.1.1.1 Excessive social influence of economists

One of the main topics addressed by the interviewees was the role that economists have played during the last decades in Chilean society. About this role, participants expressed a distinctive coincidence—rarely seen for other themes—about the existence of a notorious and widespread influence of economists in the country:

"Having a degree in economist in here [Chile] is totally overrated…economists have the last word for social issues…so what's the best option for anybody wanting to have influence on the media? Go out and say 'hey look! I'm an economist and I work in this or that think tank'." (F)

"You can see economists in Chile that have an opinion about everything and they they're seen as experts for any topic…for example my [relative] works in education and she sees how the influence of economists in the area is excessive…well, you don't need to look that far actually, the minister of education is an economist." (H)

As these excerpts show, participants held strong-worded opinions about the role of economists in Chile, using terms like 'overrated' to describe it, or pointing to their 'excessive' influence. This stance is worth noting since it is completely aligned with the sociological and historical literature on economists in Chile summarized above. Thus, it is clear that the 'social transformation' lived by economists in recent decades is not just a scholar analysis, but something experienced and perceived first-hand by those involved in the activity.

3.1.1.2 Positions towards social influence

Far from a description about something distant, however, participants took a personal stance about this social role. In this sense, most of them expressed a skeptical, or openly critical position about it:

"I think that is something harmful, harmful for the discipline and for the country…it's OK to have your own ideas and participate in the debate, but the problem comes when there's this idea that you're the authority and nobody else should have a say." (H)

"As a discipline, I think that we, economists, have been very arrogant…we don't know what we don't know, and we think that what we know is more than enough…and I'm very critical about this." (O)

Thus, agreeing on the existence of a massive influence of economists did not imply to endorse this in the least. In fact, the critical view expressed by participants H and O was the most typical among participants. This criticism is of special interest for this analysis since it does not seem to fit with the 'almighty' economists (HEREDIA, 2011) portrayed above, who supposedly look to exert as much influence as possible. Furthermore, for some participants this influence was neither perceived as something sought by economists, nor as unbounded:

"So economics took all the [social] space that was left available by other social sciences…but I do not see intentionality from economists, this was rather the place in which society placed us." (S)

"But who makes decisions in the end? Politicians…so you can't blame economics, as a discipline, for decisions that are political." (A)

Once again, these excerpts suggest that, while participants agreed on the existence of a strong influence of economists, they did not embrace it—as economists were supposed to, according to the literature.

Contrary to this self-critical and distant position, only one participant expressed an opinion in complete support of this influence:

"Well, I actually like that you can find economists everywhere, economists think that there is always a lack of economists in more areas…for example, I think that many policy decisions during this government have been made out of political rather than technical criteria, so I think there is a lack of technically-oriented people…and I think that if you talk with any economist they are going to tell you the same." (L)

It is worth noting that this participant considers his view as a common opinion among fellow economists, which does not seem to be the case in the present data set.

3.1.1.3 Rationale of social influence

Participants of this study elaborated very different reasons to explain the origins of the influence that economists have had in the country. Thus, some were explicit in connecting this phenomenon to political and historical factors:

"The Chilean case is very particular, and all this comes from the dictatorship…at that time humanities and social sciences were destroyed, but economics was a small island within social sciences, which not only wasn't destroyed but it was actually heightened in its validation and legitimacy through the Chicago school." (S)

"I think this is based in the fact that we're a country that came out of a dictatorship in which some people had an excessive power…it may sound Machiavellian, but we lived a dictatorship in which some economists could decide on structural aspects of the society." (B)

As seen, these participants attributed economists' influence directly to the dictatorship times and the reforms made by the *Chicago Boys* (VALDÉS, 1995); as it is also clear, this is not perceived as something positive. This perspective, interestingly, is fully aligned with the historical accounts described in the introduction.

An opposite perspective, however, was expressed by participants who considered that the basis of this influence is the (perceived) great contributions made by economists to the development of the country in the recent decades:

"They [*Chicago Boys*] are people that made huge contributions to the country, they made the country take a leap forward…I mean a lot of people in Chile stopped living in poverty because of them…so given the success they had, maybe Chile goes to the extreme opposite and starts to pay too much attention to them, well, to us." (E)

While this perceived contribution is deemed as something positive, this valuation does not limit participant E to consider that such contribution has led the country to pay "too much attention" to economists. Thus, it is possible to see that the perceived rationale for economists' influence is not necessarily connected to the personal stance—critical or supportive—towards it. This example, furthermore, shows how nuanced and unique were the perspectives constructed by different participants.

Related to the former view, a small number of participants connected economists' influential position to structural advantages of the discipline rather than to contingent political events or contributions:

"People tend to associate economics with the Treasury and macroeconomics, but the truth is that economics is an analytic method that you can apply to any science, particularly social sciences…but we have one advantage, that we are trained to measure, which is something that other social sciences don't do…but we, economists, are educated since early in our training to propose an hypothesis and then proceed to test it econometrically…other sciences have tried to catch up, but we are on the lead…so we can have an opinion in almost every topic because we have a method that allow us to formulate a problem and solve it…and this is the imperialism of the economists." (X)

Even though this view was a minority among participants, it is worth noting as it is much closer to the portrayal of economists made by the literature on the subject, i.e. social actors that base their influence on the rhetoric of technical, economic knowledge. For economics have a perceived an *inherent* advantage compared to other disciplines, which makes it completely natural for economists to have a more influential position. It is also interesting to note the identification made by participant X, consistently referring about economists in Chile as 'we', which is something that most participants did not do. Regarding this identification, it is important to note that he is a senior professor, with more than 40 years in academia, and also the eldest participant—which hints on a generational element that will be addressed later. While the few participants holding this view pointed to the strict numeric, mathematic nature of economics as something given, the characterizations made about the discipline were much more diverse, and certainly not only centered in the numeric.

3.1.2 Defining economics

The characterization of economics as a discipline was a recurrent theme across interviews. In particular, participants addressed five core elements, which many times reached beyond the local Chilean context: (a) the evidence-based nature of economics; (b) the conceptual role played by incentives; (c) the limits of this economic rationality; (d) the tension between normative and positive economics; and (e) the mistrust between actors in the Chilean economics community. The views expressed about these topics, following a similar trend of the results presented

above, typically included counter-views contesting what other participants said. Thus, based on this analysis it was not possible—based on this group of participants—to distill something as *the* unitary view that economists in Chile have about their discipline. It is possible, on the other hand, to observe that this is a subject in which a diverse range of perspectives sometimes converge and sometimes diverge in recurrent patterns.

3.1.2.1 Economics as evidence-based social science

When talking about economics as a discipline, participants were eager to stress the importance of working around evidence—although none of the participants addressed the exact meaning of evidence or data. In doing so, participants implicitly emphasized the scientific character of economics:

"You can think that the color green is prettier, you know, but there is a truth beyond that…you can have preferences, but you're going to study them and contrast them with evidence, with models." (B)

"You have a conviction as economist and expert in public policies, because you can't forget your own role, you're not a politician…so you're convinced that [policy A is better than B] because you have a background, you have data, you have studies, you have compared experience, etc.…I'm not going to look for the public policy that is more popular for the majority, I'm going to look for the policy that I'm convinced, not from a ideological point of view, but because I have the evidence for saying that it improves the living conditions of the poor, that gives more freedom of choice to people, because I believe in that." (T)

These examples are clear in showing that, for participants of this study, being an economist implied working around data, evidence, and research—something that could hardly be surprising. What is interesting to note, however, is that although participant T rejects any personal orientation regarding her work, she considered that giving more freedom of choice to people is something *inherently* good that public policies—and the economic reasoning supporting them—should foster. Far from cynicism, this dual stance of rejecting but also embracing normative orientations could be understood as a form of doublethink (Carré, 2017). In this sense, the perspective portrayed by participant T—even if it is inconsistent from a logical standpoint—reveals her commitment to work on the grounds of evidence but, at the same time, to advance towards—in her view—a freer society. Therefore, this is an interesting example of how deeply the personal orientations and motivations could be ingrained into doing economics.

Several participants, on the other hand, made clear their suspicion about taking economics evidence at face value. Thus they elaborated a critical angle against the former:

"If you take the econometric road, well econometrics can take anything in, you input a lot of data, whatever it is, and it's always going to produce something, the thing is how you interpret that…and there's a lot of theory behind that, there are theories saying A and others saying B, so what side you choose has to do a lot with your ideology, what are the basis for saying what you're saying…and what has more weight? That's difficult to say." (P)

Considering this excerpt by itself, its most relevant aspect seems to be the skeptical stance towards the allegedly more objective side of the discipline, namely econometric instrumental. Yet, this excerpt becomes much more meaningful when it is connected to the one discussed right above, which precisely shows how difficult it is to make such a clear-cut distinction between personal interests and way of choosing economic evidence—even when it is explicitly endorsed. Moreover, as it will be shown later, touching upon the role of ideology on economists' work is anything but a minor issue.

3.1.2.2 Key role of incentives in economic thinking

The second topic addressed regarding the discipline was the crucial role that incentives has for economic thinking. In fact, most of the participants defined incentives as the conceptual keystone of economics:

"To understand how scarce resources are allocated is to understand incentives, because if those incentives are not well aligned the allocation is going to be inefficient…and incentives are related to the market, to public policies, to the state, to externalities, so you need to understand that in depth…and this is why you see economists involved in topics like prison management, education, healthcare, because if you assume that all individuals behave according to incentives then you can use the economic instrumental to understand what happens in the classroom, I can analyze family dynamics, I can even analyze crime." (H)

Although incentives were consistently mentioned as the basis of economic rationality by most of the participants, there was little elaboration on how incentives work. In this sense, participants apparently assumed that economic actions and policies move people—all people—to react in a certain standard way; somehow disregarding the complexities of human motivation. Yet, in a very interesting turn from the former, a number of participants held a critical view of this exclusive focus on incentives:

"Economists from older generations are more one-sided, more radical on their way of looking at the world…but we, newer generations, understand that economics is not the only way to look at things…it's a reduced way, smart and rigorous indeed, but it's a limited and particular way of looking at things, it's no more that…I'm not going to explain the world from economics alone." (F)

As mentioned earlier, there was a consistent perception among participants in the 25-35-age range about a generational divide between 'old' and 'new' economists. This was elaborated in different forms but it shared the common root of identifying 'older economists' as too radical in their economic or political thinking; which served as a counterpoint for how younger economists defined themselves—much more open to different ideas and disciplines.

3.1.2.3 Limits of the discipline

Connected to this distance from an overarching logic of incentives, participants consistently touched upon the limitations they perceived about this reasoning. While few participants expressed conceptual concerns about incentives, most of them presented cases that they considered as not fit to be assessed by economics and its rationality:

"It's complicated when the dignity of the people is involved…so for example you can't defend what happens with the [healthcare system] that charges higher fees for women, I understand that from an economic point of view women imply more costs, but that's not right because that's outright discrimination…so there are many topics like this in which I have concerns." (I)

"There are things that I'm up to negotiate, and here comes the normative again, despite my economist' gut, for example, if you tell me 'legalize drugs', I would say no, because I'm sure that regarding drugs people don't know what's best for them and so it clashes with the view of an economist, which would be completely libertarian…but I don't believe in that position, but that's something normative and then I move to the citizen side." (K)

It is interesting to see how participants elaborated concrete limits to the reach of economics, which are explicitly connected to their personal experiences and ideological positions. This is clear in how participant I expressed her concern about the discrimination that women experience in the Chilean healthcare system, something that affects her directly as a woman. Likewise, participant K mentioned how legalizing drugs is an issue that, for her, just should not be decided on the basis of economics. Although this reasoning should make unclear on what grounds economic rationality should be applied to any topic, this reflection was largely absent. Besides this, these examples reveal interesting topics in which, when confronted against personal values, economics thinking recedes.

3.1.2.4 Positive-normative tension in economics

Following the 'citizen' side mentioned in the latter example, participants consistently identified a tension between the normative and the positive—as in positivism—side of the discipline (cf. CARRÉ, 2016). This tension could be described as whether economists create or pick certain evidence given their scientific, objective value or because it feeds on their own normative views.

Regarding this tension, it was possible to identify the full range of views, from 'pure positivist' to 'full normative' views, with more nuanced visions in the middle:

"None of us [professors at University 2] write political columns, these columns are only technical…they address policy issues, because they're applied, but they're not about values, they're about things that are ultimately technical…and this is something very typical from [USA university name] where they trained us to completely separate the positive from the normative side of economics, and we make that distinction very clearly…we end up making recommendations, but that is supported in positive elements." (X)

"There needs to be a balance, we're not of the idea that evidence is the only valid argument…there needs to be a balance between all kind of arguments [normative and positive], and hopefully evidence is considered as much as possible…but it's ok, both arguments are equally valid…the problem is when normative things are tried to be disguised as positive, positive in the scientific sense…if that distinction is clearly made, I have no problem." (N)

"It's a circular argument, when you say that you are not politically oriented, you're politically oriented already, because you're defending an approach and a methodology that's showing a reality that's oriented by your theoretical framework…so I see a lot of hypocrisy in the vision of fellow economists that call themselves 'aseptic-ones', as if their work is not politically oriented, and that's related with the training curriculums, that's why I think that political economy is so crucial what's happening today." (W)

First of all, these excerpts show the enormous diversity that was possible to find on whether economics is perceived to be driven by positive data or by normative orientations. It is interesting to note that how for 'positive-oriented' participants, the normative side is something that must be kept away from economics at all costs, while participants endorsing a 'normative-oriented' view claimed that such view is just a pretense created by those who do not want to acknowledge their own position. These positions create a deadlock that cannot be solved as long as the positive and the normative orientations are perceived as polar opposites. As discussed elsewhere (CARRÉ, 2016), this is not necessarily the case, especially for social sciences like economics. In this sense, keeping normative orientations completely apart from scientific activity is something very unlikely—if not undesirable—, which does not imply that these orientations would override the scientific aim of creating true knowledge (POLANYI, 1962). This integrative position, to be further discussed in the case analysis, was rarely present among the interviewed participants, which led to many suspicions between fellow economists.

3.1.2.5 Mistrust between actors of the Chilean economists' community

Several participants expressed a skeptical perception about the work that fellow economists conduct at other institutions, something that was especially clear

between university professors, think tank researchers, and research assistants. Mutual mistrust, in this sense, was based on the perception that other economists conduct their research just on normative or political grounds rather than technical ones:

"There's people within the discipline that try to preach in technical language something that is clearly ideological…I'm talking about Chicago economists in Chile…you read them several times in a month in newspapers, and they try to talk from a technical point of view, but they have no evidence for their claims, and actually many times the evidence goes in the opposite direction…so you're not going to lose your time trying to debunk them, because you know there's a strong ideological component behind it…disguising the ideological as technical is something that many people do…economics is not like physics, there's people and social process involved." (O)

"I think that many think tanks are not very rigorous, they just prefer slogans…or others [think tanks] that are too dogmatic and only pay attention to evidence supporting one side of the argument…it's a complex thing, but I think that you can make a rigorous study, based on evidence, and not because of that you're going to find everything else wrong." (M)

Here, again, the role of normative elements is a divisive point among economists. As seen, these elements have a clear role in the suspicions about the objectivity of the work made by fellow economists—but, interestingly, *never about their own work*. On the other hand, this suspicion between Chilean economists reveals that the landscape of the economics community is anything but homogeneous. In other words, while the label 'economist' might be seen as a blanket validation for outsiders, for those who take part of the community the institutions to which economists are affiliated have a strong influence on how their work is pondered. Yet, these distinctions made by economists seem to be largely absent from existing accounts on the topic. As an interesting note, the excerpt by participant O is a clear reference to economists like participant X, who have regular policy columns in newspapers. Thus, this kind of connections emphasizes the role of the economics community in the personal positioning of participants, underscoring the need for psychological approaches that are sensitive to social and cultural elements.

3.1.3 ECONOMICS AS PERSONAL ACTIVITY

Within this theme two elements converged that addressed neither the social role of economists nor the discipline, but the personal experience of *being* an economist: the motivations for doing economics; and the personal changes perceived after more than 10 years of studying and working as economists.

3.1.3.1 Motivations for doing economics

Regarding the former, participants expressed diverse positions:

"A lot of topics that [Research Center 1] addresses interest me, things like poverty, development, that have always interested me…I've always wanted to have a job that's fulfilling, that makes you feel that you're working for society…I know it sounds like a cliché, but I believe in that." (N)

"Well, I shared the ideas of everybody in here (Think Tank 1), but that's funny because nobody ever asked me about that…well, it was an honor being invited to work here by a professor, even though I would earn a lot less than in other places, I would be able to teach and keep studying…but what really attracted me was being able to participate in the public debate, to be updated with what's going on in the country, to know how the state works, what are the laws in discussion, so to know where are we heading." (R)

Although in different ways, there was a clear convergence among participants in wanting to make an important contribution to the country. Whilst this interest certainly echoes the views on the influential role of economists in Chile, it clashes with the general criticism expressed about this privileged position. As noted earlier, even if the co-existence of these perspectives could be analyzed as a logical inconsistency, the present analysis considered them as valid meaning constructions even if they might not conform to logical standards. More importantly, these motivations reveal that, far from a detached and aseptic position, most participants have an explicit and personal commitment driving their work as economists. While this does not necessarily mean that they use their technical and scientific work as a leverage to push a normative agenda, it is reminder that economists typically have a social sense of purpose beyond publishing. Moreover, the presence of personal interests sheds light on how little grasp on actual economists' experience have the portrayal of economists as just detached mathematicians.

The exception to the former, however, was coincidentally observed in the three participants who were working at government agencies, who declared to be skeptical about doing any real contribution:

"I did my internship in an investment bank, but that would be my last choice for applying to a job…because of a minimum of commitment, I don't want to make those that have a lot of money to get even more money out of financial speculation…but I'm a realist, I don't want to change the world, you know? Doing a marginal analysis, I'm not going to make any difference, zero…but one thing is doing nothing, and another thing is doing something harmful…so I don't hope to help anybody out there, but at least I'm not going to help speculators." (A)

Thus, except for these three cases, participants declared a consistent, personal interest for having an influence on Chilean society through their work as

economists. Yet, these cases are not to be dismissed, as they are a reminder of the risk of doing blanket statements about 'Chilean economists' as an undifferentiated group.

3.1.3.2 Impact of economics in personal life

The second element that stood out within this theme were the perceived influences in their own ways of thinking and behaving that participants attributed to being an economist. The clearest example of this is the following excerpt:

"I think that studying economics gives you a structure of thought that is completely different from the people in humanities and other areas, and you notice it in the conversations you have and to how you analyze a problem…now everything is cost-benefit for me, or margin analysis, and I don't believe anything that's not backed with data…in the end economics is almost an approach to the world, it's an instrumental made to conceptualize problems…and it's sometimes limited, and very totalizing, because you assume that people want to maximize their own interest and that their capable of aligning their decisions to that, and with that you can explain the world." (R)

Following participant R's description, being an economist have involved a deep transformation in the way he approaches the world; something that is scarcely considered as part of the scientific activity, given the assumed detachment of scientists from their activity. Likewise, participant K declared to experience her work as an economist in Think Tank 2 as a sort of extension of her personal orientation:

"Yeah, this work completely represents my way of thinking…particularly because of the place I'm working at [Think Tank 2], where I share the way of thinking, because of things as basic as the upbringing I received from my parents that make a lot of sense to me with everything, like the freedom of the individual, of thinking the individual as the center, instead of the group as the center bypassing the individual…so it completely goes with me, and it's funny because I got in economics just because of an inspiring professor, and I ended up working in something that identifies me completely, so I consider myself so lucky because it could have been otherwise." (K)

While participant K considered herself lucky for having her position, it is difficult to ignore the notorious alignment between biographical experiences (her upbringing, an inspirational professor), her personal views of society (individual freedom above collectivism), and the ideological orientation of the Think Tank where she worked at the moment of the interview. Even if this participant did not perceive it like this, her experience seems to point to how tightly interwoven her personal experiences and views are with her work as economist, which is in turn bound to a very specific institution. The latter point makes it clear why an integrated analysis of

psychological and socio-cultural elements is of the essence both for understanding the work of economists, and for science studies at large.

3.2. CASE STUDY

As already seen, the thematic analysis was useful in mapping the manifold themes addressed by participants and the different views that they held about them. The final example presented, however, showed how personal interests and orientations could be more than just 'influences' over a certain topic. They could actually be the thread weaving together the different positions that participants constructed. Thus, in order to properly grasp the full significance of this rich example, the case of participant K is further analyzed in this sub-section.

Participant K is a female MSc in economics in the age range between 25 and 35 years, who at the moment of the interview worked as junior research at Think Tank 2—a well-known right-wing oriented think tank in Chile. Following her trajectory as economist, it is interesting to note how she got involved in it:

"I was at high school and I really had no clue about what studying…and I don't remember why exactly, but I ended up in the business school[9], and courses on economics started to interest me more…and I remember that one professor in particular made me understand that, more than managing money, economics is about managing resources of any kind…so the analysis you make in economics is more about a certain way of thinking than about finances." (K)

Far from a long-standing call, for participant K choosing to become an economist was almost a coincidence. This shaky start, however, does not imply that she felt disconnected from her current work as economist—as clearly seen above. When asked about what exactly consisted her work, she described it as follows:

"So, I arrived here [to Think Tank 2] and they asked me 'what do you want to focus on?' and I said education, because that's my main interest and also my master's thesis topic…so I started applying the most basic logic of economics, cost-benefit analysis, opportunity cost, incentives to education…and that's why I'm here and not somewhere else…but sometimes I ask myself if I'm at the right place, because talking about education as an economist seems to be something bad nowadays, you get a lot of criticism for being an economist talking about education…once I participated in an education debate representing Think Tank 2, and a [well-known

[9] In Chile there is no bachelor-level training in economics. The degree of economist is offered as a major and honors option to those who complete a bachelor on business and administration at a limited number of universities. Only a minor fraction of students, typically those with better grades, choose to follow the economics path. Despite its academic prestige, economics is not a priority option for undergraduate students since it does not increase the future wage in comparison to the management major. Moreover, those who pursue the 'academic track' of economics (i.e., master and the PhD) certainly are a minority inside a minority

journalist] in the panel says to the audience 'well, the horrors I have to listen for deciding to debate with a young economist'…that was tough." (K)

While this single excerpt contains the core of participant K's work as think tank researcher—economic analysis of educational policy—, it reveals much more than that. As here it is possible to see her definition of economics' core rationality (cost-benefit, incentives), one for her motivations for working at Think Tank 2 (the possibility for working on education topics), and also a personal experience (being harshly criticized at a debate) that questions if economists in Chile are really 'almighty' in any topic they address. In this sense, even if it is possible to make an analysis that separates these topics into organized themes, as this example shows, these topics are tightly connected to each other, converging in a single meaningful articulation.

Regarding these articulations, participant K's personal commitment with promoting individual freedom of choice, as noted in the last example of the thematic analysis, seemed to be the thread weaving together her upbringing, her work as economist, and her position at Think Tank 2. This element was worth analyzing in further depth, particularly to determine whether this normative orientation had really twisted and biased her work as economist—a concern that many participants expressed about fellow economists. The first element to note about this is the clear line that participant K marked:

"You know, it's very funny because if it would be for my ideology I would hate the [education quality assurance agency], but if you look at what literature says about accountability, about defining criteria for assessing results, the fact that somebody inspects minimum conditions at schools, you see that's something necessary…so I admit that compared evidence and international experts say that this agency is necessary, although in the bottom of my heart I hate it…from my ideological point of view I don't like that an agency has the power to exert regulations that somebody might misuse, but the evidence is the evidence, that's what experts say, and we [Think Tank 2] echo that." (K)

As this excerpt makes clear, participant K considered that evidence is something more relevant than her own personal ideals of more individual freedom and less regulations. As other participants noted, if such commitment to work based on evidence would be *completely* subsumed to normative orientations, then it would be pointless to work as a researcher. For it would be much easier to work in politics, or simply fabricate evidence, than going through rigorous scientific standards. This commitment to base her work in evidence, however, does not go against the fact that those normative orientations—as noted in the last example of the thematic analysis—are the interest that drove her to work as an economist, and assess those ideas in scientific terms. Just as the following excerpt shows:

"I feel that here nobody works for getting the spotlight…here we all work for a common goal, which is defending the ideas that we believe in, or the policy goals that we think are the best for the country." (K)

Does this means that participant K would go to any lengths in order to push these ideas forward? As she made explicit above, this is not the case: for her, the limit for defending her ideas is what evidence says. Yet, at the same time, it is not possible to understand *why* she committed to work as an economist in the first place without these personal interests in promoting education and freedom of choice. Therefore, far from irrelevant or undesirable aspects, personal elements like this seem crucial to properly understand participant K's work in particular, and scientific activity at large. For these elements provide, metaphorically speaking, the weaving thread that binds together different experiences, views on the discipline, and research practices in a meaningful way. Thus making possible to understand them in a unitary way rather than just a collection of opinions.

Moreover, this insight—largely absent from science studies—seemed to be a pretty clear element for participant K. Thus, she reflected that:

"I think that that's what make the difference in the end, I mean, the assumptions I have, or what I think that's right is very different from what others want…so, for example, I see freedom of choice as an ultimate goal…and the consequences the follow that freedom are going to be criticized by those who do not value that freedom as much as I do, and I think that in the end everything is connected to those tenets, to the valuations you make of things, and that's the origins of all the differences…if I had the same ultimate goals, not the ones that you sometimes declare, that the government has, for example, I would be proposing the same policies that they're doing right now." (K)

Here it is possible to see how this participant identified that normative orientations are not only an element that drives her work, but also the work of other actors, like the government. Although, interestingly, she did not attach the same negative meaning that other participants attributed to normative orientations—as seen in the previous section. On the contrary, to a certain extent she acknowledged that other social actors could have different normative orientations, and that is not something to be bashed but to be accepted. This opens a topic that participant K did not address but that seems of the outmost importance to understand the work of economists in Chile: how are those normative elements driving economists' work discussed in order to reach a potential consensus? Moreover, could they really be discussed when they are typically assumed to be completely absent? This is a topic that goes beyond the present work but certainly deserves attention in further research.

4. DISCUSSION

In order to discuss these extensive data, it is not possible to avoid what MITROFF (1972a) wrote about the results of his own seminal study more than 40 years ago:

"Needless to say, the results of this study are so much at variance with the common, stereotyped image of science as to cast "extreme" (if not "total") doubt over the validity of such previous accounts of science. Further, the study not only seriously questions the images of science that have been perpetrated by the philosophy and sociology of science (to mention but only two fields of inquiry that actively study science) but it also raises the question of why we have perpetrated such images. In psychological terms, why have we needed to perpetrate such images? Is there something in the psychology of scientists (and in those of us who study science) that has made us need the stereotyped image of science?" (p. B-613)

While the conclusions of the present work are definitely neither as radical nor as opposed to the literature as the case of MITROFF (1972a), the scenario described by him certainly resembles the discrepancies found by this study regarding the existing works on economists in Chile. Thus, let us summarize both the thematic analysis and the case study performed in order to observe in detail how much convergence and divergence exists between the present qualitative, cultural psychological approach and the historical and sociological literature.

As a whole, the thematic analysis performed made clear the existence of a myriad of perspectives and views of participants. In the first place, while it showed a consistent agreement regarding an influential role of economists in Chilean society, it also made clear that participants leaned towards criticism rather than support about it. Even though the former echoes the historical and sociological literature on the role of economists (e.g., MARKOFF & MONTECINOS, 1993), the latter results difficult to integrate in it, as economists were expected to endorse rather than criticize their own social influence. Furthermore, as some participants declared, most economists in Chile do not have much concrete political power, as they perceived their influence as expert 'opinion-makers' rather than decision-makers. Additionally, participants proposed three different rationales for such influence: the dictatorship and the role of the *Chicago Boys*; the contributions that economists have made to the country's development in recent decades; and the inherent technical-scientific superiority of economics. These views, interestingly, reflect the different political narratives that have addressed the role of economists in Chile (GÁRATE, 2012a; HUNEEUS, 2014), namely critical, pragmatic, and supportive.

Regarding the views on the discipline expressed by participants, five aspects were salient. The first of them was placing evidence as the paramount criterion for doing economics. Yet this was questioned by underscoring the interpretative side involved in econometric evidence. This critique, more likely to be found in sociology of scientific knowledge works (e.g., ARIZTÍA, 2012), makes a point on how reflective and self-critical participants of this study were regarding their discipline. This self-criticism and reflexivity is especially noteworthy for a topic like econometrics, which has been a dominant trend in the discipline during the last decades (CARRÉ,

2017), and thus largely assumed to be a dogma among economists in Chile (e.g., GÁRATE, 2012a).

The second element defined the core of economic thinking, namely incentives, and how they allow economists to model any human phenomena. This view provides a grounded explanation for MONTECINOS and MARKOFF's (2012) perspective, which points out how economists' influence has expanded into many different social issues. Younger participants, however, consistently deemed this unbounded view of incentives—and thus economics—as 'radical', using it as an example of the distance they perceive with older generations. A generational divide that, following the literature reviewed, seems to be an absent topic.

Connected to the former, the third aspect of participants' definition of economics was the perceived limitations of the incentives logic, which proved to be not so universal as previously defined. Interestingly, these limitations were based in personal, normative elements rather than conceptual or methodological shortcomings; something that was also possible to observe in the two previous sub-themes. These personal views, as noted in the introduction, have been either ignored by the literature or subsumed under collective aspects, like institutional memberships (e.g., GÁRATE, 2012b). As the examples presented for these sub-themes make clear, these personal commitments play a much more relevant role.

Thus, the fourth element addressed within this theme was the tension between positive and normative aspects of economics, which revealed a continuous spectrum of positions: from those who considered economics as a positive, data-driven discipline to those who view it as driven by normative orientations. While the former has been assumed to be *the* perspective of economists in Chile (e.g., MONTECINOS & MARKOFF, 2012; cf., HEREDIA, 2011), the latter view has been largely omitted. Moreover, following POLANYI's (1962) description of how difficult it is for scientists to acknowledge the presence of personal elements in their work, it is pretty remarkable the insight displayed by participants of this study. For all these cases, the intrusion of normative elements was typically deemed as something to be avoided; yet even those participants who were vocally against this hinted at how their personal orientations colored their work. This negative valuation of normative elements seemed to be based on the idea that these elements would bias their work, turning it into a mere subjective opinion. This does not necessarily needs to be the case, as the former assumption is rather based in an unrealistic conception of the scientific work (POLANYI, 1968), particularly for human and social sciences.

Connected to the former, the fifth sub-theme addressed was the mistrust that participants expressed about fellow economists working at different institutions, since they were suspected of forcing their scientific work to fit their normative orientations. Interestingly, participants holding this critical view did not express concerns that something similar could happen to them. This differential perception of fellow economists, however, has not been stressed by the critical literature on the

subject, yet it could certainly complement the analysis of newer actors—namely think tanks—of this community (e.g., SILVA, 2012).

Finally, the third theme addressed by the thematic analysis corresponded to those personal elements that participants *explicitly* perceived to be related with their experience as economists. Thus, the predominant motive expressed by participants for studying and working on economics was being able to make a relevant social contribution, be it through advancing the frontier of knowledge or by promoting better public policies. This declared motivation is certainly aligned with the social role that economists have had in Chile (GÁRATE, 2012a) and the acknowledgement that participants made of this role described above. Moreover, the relevance given by participants to their motives for being an economist showed—from a different perspective—how personal elements drove participants' work. However, an interesting counter-position was expressed by a group of participants who declared to be very skeptic about any contribution they could make, declaring their work as economists just as an interesting, well-paid job. This counter-position shows, once again, how relevant is HEREDIA's (2011) critique regarding blanket depictions of Chilean economists.

The second element within this theme was the personal changes attributed to being an economist. Here it was possible to note several experiences of how economics promoted a more analytic mindset, centered in incentives and marginal analysis. This is certainly worth noting as the personal changes associated to become a scientist have received scant attention even within psychological accounts of science—with few exceptions (e.g., OSBECK et al., 2011; YEN & TAFARODI, 2011). As noted before, this neglect is probably due to the assumed detachment that scientists should have toward their activity (POLANYI, 1962, 1968). A different angle of these perceived changes was the experience of participant K, who reflected on how the relevance of freedom of choice provided continuity between her upbringing, her education as economist, her personal social how views, and her work at a *specific* think tank. This example in particular resulted very interesting as it shows two quite important points for this work. First, how personal experiences and commitments drive in a *constructive* way the scientific activity by turning it meaningful, rather than representing a calculated bias subverting the spirit of scientific work. Second, that participant K's position at a concrete institution, which is aligned with her own views, is crucial for this meaningful perception of her work as economist. The latter point is a clear example of why it is crucial to analyze personal meanings in relation to socio-cultural elements—like institutions—for science studies in particular, but for human studies at large.

The in-depth analysis of participant K's case showed in further detail how her personal interests and commitments were interweaved in her work. In particular, it revealed the balance between these normative orientations and the commitment to work scientifically as an economist. In this sense, participant K made clear that she would not go against what economic evidence establishes, even if this contradicts her personal views; thus endorsing a scientific stance that aims for objectivity. At

the same time, her interest for doing such economic research was ultimately based on her ideal of a society that provides individuals alternatives to choose, especially in education. This balance represents a very good example of POLANYI's (1962) theorization on personal knowledge. Moreover, it also showed how the acknowledgement of a personal perspective does not imply a rejection of any other view that does not coincide with it. Given the relevance attributed by this participant to these personal elements, which also coincide with existing theoretical views (e.g., POLANYI, 1962; VALSINER, 2014), it is difficult to understand why they have received so little attention. If anything, this article is an effort to revert this trend and widen the scope of current social and psychological studies of science.

Summarizing, just as HEREDIA (2011) hypothesized, the variety of perspectives expressed by participants was notorious. Thus, based in the diversity observed in the small group of participants interviewed, it is not possible to conclude, along with the literature, a homogeneous group thinking among economists. On the contrary, having a personal, meaningful stance towards these topics was the rule rather than the exception. To make this aspect visible, the qualitative, two-step analysis proposed by WAGONER (2009) was crucial. While the thematic analysis provided a valuable overview of participants' positions, the personal perspective of participants was brought forward through the detailed analysis of particular cases. In particular, the latter revealed how personal commitments—about the discipline and society—weave together the views that participants had on the social role of economists, the discipline, and its relation to their lives.

As mentioned in the introduction, the present article is by no means an effort to 'sabotage' economists or their work. It is, first, an effort to show the relevance of including their personal perspectives and experiences in order to properly understand their influence and work; thus avoiding blanket generalizations based in collective elements. At the same time, this study aimed to show that it is possible to do the former without isolating these experiences and views from the cultural environments in which they occur. More generally, this article is presented a way of understanding scientific activity better not by suppressing the personal dimension of scientists but by exploring and understanding its role.

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CHAPTER 6. RESISTING BUT ACCEPTING IDEOLOGY: MAKING SENSE THROUGH DOUBLETHINK

Carré, D. (2017). Resisting but accepting ideology: Making sense through doublethink. In N. Chaudhary, P. Hviid, G. Marsico, & J. Villadsen (Eds.), *Resistance in Everyday Life: Constructing Cultural Experiences*. Singapore: Springer.

RESISTING BUT ACCEPTING IDEOLOGY:

MAKING SENSE THROUGH DOUBLETHINK

David Carré

> As men in society, scientists are sometimes the agents, sometimes the objects, of resistance to their own discoveries. (Barber, 1961, p. 602)

Resistance, as a general notion, evokes mixed impressions. On the one hand, it portrays the courageous, rebellious face-off of the weak against the powerful, the oppressor. History is generous with examples of this way of resisting: from La Résistance française fighting against Nazi occupiers, to the nonviolent resistance and civil disobedience movement led by Gandhi against the British colonial regime. Yet resistance might also stand for those holding stubborn positions, acting against everything without proposing any alternatives. For instance, reactionaries, those who strived for returning to the *status quo ante* and opposed to (what was presented as) the transformative forces of the French Revolution. Therefore, as these two sides of resistance show, there must be first a pushing, transformative force—oppressive or progressive—in order to be a resistance against it. Hence, regardless of whether its valuation is emancipatory or reactionary, resistance appears to exist primarily as an oppositional, negative force.

Going beyond this assumption, however, the present volume offers several examples (Cavada, this volume; Konwar & Bhargava, this volume; Sharma, this volume; *et passim*) of what emerges out of such 'negative' forces. In brief, these works extensively emphasize how oppositional stances could become stepping-stones for creating novel psychological paths in human lives. In this sense, resisting against something—institutional settings, societal expectations, or family pressures—might begin as a blunt 'no'; but it might also support the person into constructing something different, something better. Ultimately, as shown by the examples in the previous paragraph, those who have resisted against something have at the same time always strived for creating—or returning to—something other than the current state of affairs.

The general character of resistance is well summarized by Valsiner (2014), in particular through his A<>non A schema—based on Alexius Meinong's and the Graz School ideas. In the context of his cultural psychology of semiotic dynamics, Valsiner proposes that for every node-point sign 'A' there is necessarily a 'non-A' field-like sign (Josephs, Valsiner & Surgan, 1999). Here it is worth noting that the '<>' symbol connecting A and non-A denotes a co-constitutive relation between them. In other terms, the nature of A is necessarily defined in relation to all the elements, or meanings that legitimately link with what A-is-not. This approach for defining the content of a sign reflects the existence—and creation—of mental objects as '*Gegenstand*', German word for object that "entails the notion of position (*Stand*) against (*Gegen*) something" (Diriwächter & Valsiner, 2008, p. 219). Therefore, for Valsiner (2014), resistance is one of the most basic drivers for the functioning and development of the human mind. In his words: "All psychological phenomena can be characterized by DIRECTION and COUNTER- DIRECTION (or—RESISTANCE to DIRECTION). The unity of such direction and counter-action creates for psychology the arena for conceptualizing dualities in their functions" (p. 13). As it will become clear, this is the general framework for the ideas presented from now on.

In this chapter I look to further elaborate on the basic, driving role of resistance for human psychological functioning proposed by Valsiner (2014). In particular, I focus on the cases in which persons resist and forbid themselves certain opinions or interests in order to make sense of certain areas of their own lives. Interestingly, most of these self/cultural–forbidden paths are not only to be avoided, but it becomes necessary to overtly stand against them, thus displaying an active resistance. As football hooliganism reminds us time and again, rooting is not enough for 'true fans'. For hooligans, it seems more important to fight—sometimes to the death—against fans supporting other teams rather than do anything related to what happens in the pitch. Thus standing for their team *equates* to be against other teams—even beyond football. In brief, as Nedergaard, Valsiner, and Marsico (2015) argue: "We need fictions of not being in order to be, and being so as not be." (p. 261)

My elaboration, however, looks to explore the dynamic character of the latter claim, i.e. what happens when those 'fictions'—of being and not being—are not fixed over time but actually exchanged during the span of an interaction. In particular, I aim to examine those situations in which strict stances-against-something coexist with positions that embrace such 'against'; thus making the people doing this appear—to the outside observer—to be inconsistent and contradictory. More specifically, through this inquiry I look to understand the *purposefulness*[1] of such apparent inconsistencies—relying on the assumption that they are alternative ways for making sense of the own life and environment, rather than mere contradictions. By so doing, I take distance from existing views on the topic (e.g. Daniel, Schiefer &

[1] For a deeper elaboration on how 'purposefulness' is understood along this chapter, see Cornejo's ideas (2010) on the teleological structure of the human being-in-the-world.

Knafo, 2012; Higgins, 1987), which *a priori* assume the lack of verbal or behavioral consistency as flawed or problematic.

In fact, within psychology, inconsistency has commonly been associated either with cynicism—e.g., double standards—or some kind of mental slip that must be overcome—viz. cognitive dissonance (Festinger, 1962). Contrary to this trend, I argue in favor of temporarily suspending such logicist standpoint[2], and ponder whether inconsistencies might be a potentially valid sense-making approach for persons. For this purpose, during this chapter I leave the term inconsistency, and its derogatory valence (see Abelson, 1983), behind. This is done for two reasons: first, while consistency is a logical necessity, there is no reason to assume beforehand that the same axiom applies to *every single instance* of psychological experience; second, because the notion of inconsistency presumes that there is no possibility for equilibrating two incongruent positions, neither *over time* nor in different *contexts*. Here it is worth noting that through these ideas I do not intend to challenge—not to say deny—the relevance of consistency as a psychological principle in the least: Gestalt psychology and everyday experience should provide enough support to make its importance self-evident. If anything, in this chapter I am trying to suspend the assumption that every person, at every moment, must be looking to achieve full logical consistency in speech and action.

Following these ideas, in the present chapter an alternative psychological approach is introduced to understand why sometimes persons do not look for consistency, instead of plainly pointing to its logically flawed character. Thus, in the first place, the seminal hypothesis of *cognitive polyphasia* proposed by Moscovici (1961/2008) is discussed in relation to the presence of contradictions in everyday thinking. After this, the Orwellian notion of doublethink (1949/2013), i.e. simultaneously holding opposite discursive positions without any perceived dissonance, is traced into psychological research. Following the empirical ways that the latter notion opens for addressing contradictions as a meaningful resource, the case of a young Chilean economist is presented and analyzed under the lens of doublethink. As it will be shown, this case provides a vivid example of how contradictory thinking might be not experienced as problematic *per se*, and how it could rather help to organize a complex, multi-layered professional role.

COGNITIVE POLYPHASIA AND THE UBIQUITY OF CONTRADICTION

In his seminal work on social representations, Moscovici (2008) introduced the hypothesis of cognitive polyphasia, i.e.: “the dynamic co-existence—interference or

[2] This position is perfectly depicted by Frege’s quote: “But what if beings were even found whose laws of thought flatly contradicted ours and therefore frequently led to contrary results even in practice? The psychological logician could only acknowledge the fact and simply say: ‘those laws hold for them, these laws hold for us’. I should say: ‘we have here a hitherto unknown type of madness.’” (1893/1964, p. 14)

specialization—of the distinct modalities of knowledge, corresponding to definite relations between man and his environment" (p. 190). This idea emerged from how individuals and groups used different, even contradictory, modalities of knowledge—political ideology, religion, common sense, medical science, etc.—for making sense of psychoanalysis in France. It is particularly interesting to note that Moscovici (2008) characterized this use of plural modes of thought as a "disturbing observation" (p. 185), a remark that Marková (2008, p. 477) elaborates as follows:

> The reader, well educated in psychology, whether of the 1960s or in 2008, might be disturbed to learn that human thinking is full of contradictions and that people do not think according to the Aristotelian laws of thought; that they are influenced by thinking of others and by historical and cultural ideas transmitted over generations. But to this the author himself responds by saying that it is not the vocation of logic to enforce its laws on anybody.

In this sense, Moscovici (2008) and Marková (2008) are both fully aware of how much psychologists struggle to embrace the presence of contradictions. Notwithstanding this: "social psychology [is not] the guardian of the rules—even those of thought" (Moscovici, 2008, p. 163), and therefore it should not hold back from studying the lack of consistency in thought, speech, or action.

Considering the former, cognitive polyphasia appears as a key idea for approaching contradictions and its psychological sense. Its current understanding, however, involves a characteristic that does not make it fully suitable for the present study. This feature is aptly represented by Wagner, Duveen, Verma, and Themel's (2000) quote: "Even in the earliest studies it was clear that everyday thinking frequently embraces representations that carry contradictory meanings. Such contradictions are usually not disturbing so long as each representation is locally consistent and so long as they *are not simultaneously expressed in discourse*." (p. 303, emphasis added) As the case described later will show, the latter is not necessarily so, as it presents numerous contradictions, simultaneously expressed, which do not convey disturbance. Hence, if cognitive polyphasia rules out the latter, how else could it be explained?

DOUBLETHINK BEYOND ORWELL'S 1984

The term doublethink is introduced to the English vocabulary through George Orwell's dystopian novel *Nineteen Eighty-Four* (1949/2013). Within Orwell's fiction, "the labyrinthine world of doublethink" (p. 44) is presented as a crucial psychological process for keeping the authoritarian order in place. So it is described as:

> To know and not to know, to be conscious of complete truthfulness while telling carefully constructed lies, to hold simultaneously two opinions which cancelled out, knowing them to be contradictory and believing in both of them, to use logic against logic, to repudiate morality while laying claim to it, to believe that democracy was impossible and that the Party was the guardian of democracy, to forget whatever it was necessary to forget, then to draw it back into memory again at the moment when it was needed, and then promptly to forget it again: and above all, to apply the same process to the process itself. (pp. 44-45)

The core idea of doublethink is crystal-clear: to simultaneously embrace contradictory and inconsistent stances without noticing them as such. In Orwell's dystopia (2013), however, all the positions that constitute doublethink are twisted lies constructed by the propaganda machine of the authoritarian group in power in order to keep citizenry uncritical and under control; e.g., the Party' slogan: "War is peace, Freedom is slavery, Ignorance is strength" (p. 6). Hence the 'bad name' of this process, as Orwell introduced it, comes for its contents—propaganda—rather than its structure—coexisting contradictions that do not appear as problematic to those expressing them.

Whereas it is possible to trace the notion of doublethink into humanities and social sciences research, it is easy to note its scarce presence. This makes even more interesting to observe that it has been applied to a wide range of human phenomena: from patterns of illicit drug use among adolescents in Estonia (Allaste & Lagerspetz, 2005), to the widespread use of ambivalence public relations (Willis, 2015), to the contradictory use that teachers make of educational data (Hardy & Lewis, 2016), to its prevalence in the accounts of organizational life (El-Sawad, Arnold & Cohen, 2004). Despite their differences, all these studies present something similar: participants who express opinions, either about themselves or about activities they perform, that ultimately contradict each other.

Among these studies, the one conducted by El-Sawad, Arnold and Cohen (2004) offers the most theoretical and empirical insight on doublethink. In particular, El-Sawad and his collaborators elaborate on the purpose of doublethink, which they report as a way in which their participants cope with different organizational settings demanding opposite positions at the same time. Let us look at two of their examples[3]. A participant identified as Alison, for instance, firstly explains the

[3] The examples shown purposely exclude any case that involves so-called non-professional roles; for instance, the tension—and associated doublethink—between career development and family planning, religious beliefs, etc. This is done with the sole purpose of addressing

micropolitical nature of being promoted in her organization: "How [career management] happens here is that the first line work out who it is they think are stars, and the second line sort of collate that." (El-Sawad, Arnold & Cohen, 2004, p. 1189). Only to say later that: "From the political point of view, I don't think it [career progression] is political . . . the people who call it political are the people who just do their job and who are only willing to do their job." (p. 1189). Thus, according to her account, being promoted involves navigating through organizational politics, in spite of claiming later that those who attribute career to politics are those who just work the bare minimum and do nothing to get promoted. Likewise, Adam declares that: "You can sort of steer your own path . . . there are a lot of opportunities that will allow you to more or less do what you want to do." (p. 1193) However, later on he acknowledges that: "Certainly earlier I would say that I was restricted in my [career] choices because I was recruited to do a specific role . . . if you just accept that and get on with it then you'll be OK" (p. 1193). As contradictory as in the first example, Adam sees his career path as something that is fully crafted by him *and* shaped by the role he was hired for, despite the fact that these two positions oppose and exclude each other from a logical standpoint.

Following these and other examples, El-Sawad, Arnold, and Cohen (2004) note that: "There is no apparent tussle between our participants' contradictory beliefs, no detectable sense of implacable struggle, and no need for one to win out over the other. One is not more true than the other." (p. 1198). An observation that leads to the most relevant conclusion this study for the present work:

> As we have seen, participants in our study *have more than one personal narrative*. Whilst each *individual narrative may be internally consistent* and coherent, it frequently conflicts with and *contradicts other narratives* which the individual articulates. We see security as deriving from keeping separate or bracketing these contradictory and conflicting dimensions. (p. 1198, emphases added)

Based on this, the authors elaborate on the purposefulness of doublethink, which: "may be one way of containing the contradiction created by the performance of different roles." (p. 1195) As different roles have different, potentially contradictory logics among them: "We suggest that, rather than confronting and attempting to resolve contradiction, people contain it by offering different (and separate) narratives" (p. 1199). And so it becomes not only possible, but also reasonable to enact two different, opposed roles and their associated narratives; as in the first case:

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the usual concern of bringing "personal issues" into professional settings. Thus I only focus in conflicting roles that "officially" pertain to organizational, professional environments—despite considering the former distinction as an analytical categorization rather than a psychologically grounded approach.

one that links career progression with personal hard work, and downplays micropolitics; and other that allows to be aware and responsive to micropolitics, regardless of performance. In so doing, this person is certainly dealing better with the complexities of organizational life by simultaneously addressing two different dimensions of his professional role. Even if she is not addressing this contradiction in a conscious, post-formal way of thinking, as scholars have theorized (Kramer, 1989).

In the following, a similar case to those discussed by El-Sawad, Arnold, and Cohen (2004) is presented—yet with a variation. While the former authors bring forth the use of doublethink in organizational contexts—implying for-profit companies—, the following case relates to the less-addressed realm of science and scientists. Beyond the scarce use of doublethink in studies of science ("Doublethink—Among Scientists and Others", 1965; Merton, 1963), this domain becomes especially interesting for the topic given the stark contrast between its public presentation—neat, objective—and how it is ordinarily lived by those involved in it—messy, passionate (see Shapin, 2008). All the latter led me to think that the role of scientist is prone to contradictory stances that must be coped with somehow. Thereby, the single case of a young Chilean economist, working in the local branch of an international applied research network, is discussed in the following.

DOUBLETHINK IN THE MAKING OF SCIENCE

As noted above, scientific activity—as many other occupations—might require its practitioners, i.e. scientists, to enact contradictory roles. For scientists in particular, one source for such opposition is the idealized image that the public ascribes to them. As Petkova and Boyadjieva (1994) show, the popular conception about them portrays a scholar who lives in an ivory tower, isolated from any worldly matter and solely devoted to his or her research. Research that preferably addresses material phenomena, as this assures that no social or moral biases could have an influence over its objective character (cf. Daston & Gallison, 2010). Thus we see that the stereotypical image captured by Mead and Metraux (1975) forty years ago has not aged:

> The scientist is a man who wears a white coat and works in a laboratory (…) He is surrounded by equipment: test tubes, benzene burners, flasks and bottles, a jungle gym of blown glass tubes and weird machines with dial (…) He is prepared to work for years without getting results and face the possibility of failure without discouragement; he will try again. He wants to know the answer (pp. 386-387).

Looking at this aseptic, lab-coated idea of what a scientist should be, it is simple to think of opposite roles to it. As discussed elsewhere (Carré, 2016), the most contrasting position to the former image of a scientist probably is that of an activist. While there are obvious differences—training, modes of argumentation, social impact, etc.—, the borders between scientist and activist become blurred as soon as the phenomena at stake are not purely material but also social and human—thus having direct moral implications[4]. Despite this reflection, practitioners of human sciences—either collective or individual—certainly adhere and look to enact the previously mentioned image of the objective, aseptic scientist. Thus any roles that bring moral orientations, ethical choices, or political orientations into scientific activity are forbidden: being a good (human) scientist demands avoiding and rejecting all the latter, as they are personal elements that *must not* influence the scientific work (cf. Polanyi, 1968[5]). It is difficult to conclude otherwise after looking at the methodological approaches and writing styles used by the sociologists, psychologists, and economists currently publishing in the *American Journal of Sociology*, *Psychological Science*, or the *Journal of Political Economy*—all of them top-tier journals for these disciplines.

Here the case of economics—and economists—becomes especially interesting since economic knowledge has been rarely detached from the socio-political realm—be it policy, polity, or politics. As a matter of fact, some of the most notorious economists in history, from Adam Smith (1776/1910) to David Ricardo (1821) to John Stuart Mill (1848/1884) to John Maynard Keynes (1936/2007), all published major works on *political economy*. In spite of this historical trend, there is a clear movement in economics of moving away from political issues and toward mathematical modeling, i.e. econometrics (see Qin, 2012). While this could be grasped in personal communications with—at least Chilean—economists (Carré, in preparation), it is also clearly expressed through the bibliographic data of the last 40 years. As Kim, Morse, and Zingales (2006) comprehensively show, econometrics publications have overshadowed both micro and macroeconomics—among papers with more than 500 citations for the 1970-2005 period. Furthermore, according to

[4] The activist position was purposefully chosen in the work mentioned (Carré, 2016) in order to take the argument to its polar opposite. Yet it is clear that a more balanced position—like citizen—expresses better the relation that human scientists establish with their phenomena of study. This is, being involved with these phenomena, committing to studying them exhaustively and caring about their implications; yet not compromising the inquiry for the sake of making the phenomena fit researcher's expectations.

[5] "Besides, the relation of the scientist to his surmises is one of passionate personal commitment. The effort that led to a surmise committed every fiber of his being to the quest; his surmises embody all his hopes. The current theory that ignores the mechanism of tacit knowing must ignore and indeed deny such commitments. The tentativeness of the scientist's every step is then taken to show that he is uncommitted. But every step made in the pursuit of science is definitive, definitive in the vital sense that it definitely disposes of the time, the effort, and the material resources used in making that step" (Polanyi, 1968, p. 41)

these authors (pp. 15-16), 9 of the 20 most cited articles in economics have been published in *Econometrica*, the publishing outlet of The Econometric Society.

Notwithstanding the unavoidable simplifications contained in the previous argument, there certainly is a historically grounded tension in the roles that a professional economist might assume: on the one hand, the 'modern' economist, who makes use of the most sophisticated mathematical techniques available to create systematic, objective evidence for scientific purposes only; on the other hand, the 'classic' economist, who looks for answers to contingent, pressing social issues in order to have a voice in the political arena. Thus, while for the former having a political orientation could be a main source of bias for economic research, for the latter it could appear as the necessary framework to make sense of any economic data. As the following case will show, the tension existing between these positions is anything but abstract, or purely bibliographic. On the contrary it appears as a compelling issue, in personal terms, for those who are initiating their careers as economists. Moreover, this example provides valuable ground to assess the usefulness of doublethink as an analytical approach.

DOUBLETHINK IN ACTION: IDEOLOGY FOR A YOUNG ECONOMIST

The case analyzed corresponds to a 27-year-old, male Chilean economist (M.Sc.), who worked as a full-time research assistant at the Latin American and Caribbean branch of a worldwide action-research center on poverty, located in Santiago de Chile. When the first interview was conducted, the participant had been working for 6 months at the research center in a junior position, right after his graduation. The second interview was conducted 10 months later, when he had been promoted to senior research assistant—and had already applied to several Ph.D. programs abroad. Both interviews were guided through a semi-structured script, and lasted for around 50 to 60 minutes. They were conducted in person by the present author in Spanish, which is the native language for both interviewer and interviewee. Hence the excerpts provided in the following are all personal translations.

At the beginning of the first interview, the participant is openly asked about the objectives of the research center where he works. About this he says that:

> The idea they [research center directors] have is, we have been doing a lot of public policies around the world to fight poverty, but truth is that we don't have evidence about what works and what doesn't. We have notions, many of them based in ideology…ideological thinking but we do not have evidence of what is useful, of what helps and what doesn't. [00:01:06]

Here it is interesting to note the spontaneous wording used by him—particularly 'ideology'—, and also the relation he establishes: evidence is to be constructed in order to overcome ideological thinking. In this sense, he presents science as the opposite of ideology. Interestingly, this relation does not only pertain to the research center but it is also linked to his career choice as an economist[6]:

> I found it interesting to have an approach from social sciences that is more precise to understand problems. To understand problems beyond giving ideological interpretations of them, this [economics] is an approach that is more rigorous, more scientific. [00:08:48]

Here the participant considers ideology-based thinking as a kind of limitation for understanding social problems; limitation that he wanted to overcome through learning economics and its rigorous approach. This excerpt, again, shows the opposed relation that he ascribes to science and ideology. This young economist, however, acknowledges that other fellow economists—at least in Chile—do not adhere to such standards. When he is asked about the prominent voice that economists typically have in Chile, he says that:

> There are a lot of people that are prone to use that technical recognition [having a Ph.D. in economics] to, instead of talking about technical things, talk in ideological terms about what is technical. And I do think that in Chile that definitely happens. [00:17:14]

In this excerpt, the participant again opposes a scientific, technical stance with a position based in ideology. Moreover, he calls out the misconduct of those who try to hide their ideological positions behind a technical façade—like having doctoral studies in economics.

So far, the position of the participant seems clear and consistent: politics and ideology must give way to technical knowledge, as the former is a limitation for understanding social issues. To a certain extent, this could be paralleled to the abovementioned tension between scientific–mathematic and politico–normative economics, with the participant clearly endorsing the former. Yet, as the interview

[6] In Chile there is no bachelor-level education in economics, but it is offered as a major option to those who completes a bachelor on business and administration. It is important to note that, typically, only a minor fraction—less than 20%—of students choose to follow economics; usually those with better grades. Notwithstanding its academic prestige, the major—and subsequent master—in economics tends to be discarded by students as it is considered a winding path to the job market, with no significant influence on the future wage compared to other easier major alternatives. In this scenario, those who pursue the 'academic track' of economics after the master are a minority inside a minority.

advances, he shares his vision of economics as a very narrow-minded discipline. A discipline that focuses in only one way of looking at social issues, and so it requires other disciplines to properly inform social initiatives, or public policies. When asked about such specific approach of economics, he says:

> Economics usually does not assume that there is a certain ideology in its own way of looking at things. I mean, when I decide to look at an outcome it is because I have certain values. I'm not saying that this is bad or negative, but it just is. Economics does have certain values that sometimes it's hard, that sometimes it doesn't acknowledge. Economics does have a value; it puts efficiency above everything else. Is this something good or bad? It's neither good nor bad, it just is. It's something normative, where certain outcomes have been put above other equally useful outcomes. [00:21:22]

This opinion certainly represents a sharp turn from the previous excerpts, as the participant now refers to ideology as something ubiquitous in economics work, instead of a limitation or scientific misbehavior, as previously asserted. Furthermore, he says that these value-orientations are something normative that should not be judged. Something that stands in stark contradiction to labeling them as opposed to scientific work. Interestingly, he goes on over this idea with no further questions:

> I think that we [economists] are missing a little bit of self-criticism, of acknowledging that we're doing those value judgments. We are missing taking a step back and saying: despite being a serious science, etc. economics also has value judgments when it makes its analyses. Like this critique of Heisenberg's uncertainty, where he says that if I observe an object I will necessarily modify that phenomenon. To a certain extent economics could also have the same, and I'm not sure if we economists are humble enough to acknowledge that. [00:21:56]

Surprising as it may be, in the two last excerpts the participant assumes a stance that is critical about the position he endorsed a couple of minutes ago. If he previously considered ideology as a limitation to overcome, now refers to it as something unavoidable despite economists' unwillingness to acknowledge it. Following-up on this, he is asked about how is it for him to work in an academic environment where

that self-criticism is mostly absent—as in the position he assumed at the beginning of the interview. To this he replies:

> It is a dialogue that sometimes creates friction, but the world is changing in that direction. All the social policies that the students' movement, the social movements [in Chile] are raising nowadays don't have so much to do with efficiency but with normative positions. For example, profit on education, I'm sure that is way more efficient to have for-profit schools. But normatively people don't want schools to be for-profit. Why? I have no clue. People just don't want see somebody profiting from education. And I don't know whether that is good or bad, but people just don't want it. And that becomes an element at the moment of making policies. This is valid, and economists from now on will have to start considering this as part of the equation. [00:24:48]

As the last excerpt shows, the participant moves a step forward into his new position by acknowledging that the ideological-normative positions from citizenry are elements that are becoming increasingly more relevant for economics. Even if he personally does not agree with some of them, the participant says that economists cannot try to step over them and impose its own scientific, efficient logic. Again, this claim goes further against his initial remarks on why he chose economics and what is the aim of the research center where he worked. Only a couple a minutes later, however, he is asked about whether he considers his personal research interests as having the 'trademark' of the center, and to this he replies:

> But, you know, [research center name] honestly does not have a political orientation, the only orientation is: let's do scientific evidence. Scientific in what terms? In terms of measuring things through social experiments. And [research center name] doesn't have a research program but a way of doing research. It's just a network of researchers that basically have one common way of doing research: experimental method. That's all. [00:26:58]

Puzzlingly enough, the participant now expresses an opinion much more aligned with his initial stance rather than with the one discussed in the previous paragraph. Thus he goes back to exclude normative stances from economics work and putting forward the scientific rigor of the research center. By so doing, within 30 minutes,

the participant moved from: a stance where he considers economics as the key for overcoming ideological thinking; then to one in which ideology and normative positions are constitutive to economics—with this being considered as neither good nor bad—; to finally one that reassures that his—and the center's—research work has nothing to do with normative, ideological orientations as it is pure scientific evidence. If anything, the trajectory made between different, contradictory narratives about economics and economists certainly resembles the cases discussed by El-Sawad and his collaborators (2004) as *doublethink*.

Interestingly, instances of doublethink like these were not exclusive to the first interview. During the second conversation, it was possible to observe this phenomenon in a different fashion. Instead of several jumps between opposed positions, the participant now displayed an approach that is well summarized by the following quote:

> RCTs [methodology used at the research center] are empirical, real data, without an ideology behind it. I mean there is some [ideology] to a certain extent, but in a different sense. But it is not like someone thought of a certain [mathematical] model, wrote it in a given way, and it gave this or that result. [00:07:31]

As seen, both the 'scientific' and the 'ideological' positions appear as opposed yet co-present—something that was not observed in the first interview. Far from a fluke, the same could be observed in a later answer, where the participant elaborates on how his research work as economist makes sense for him in personal terms:

> First, I don't know what else could I do. I'm already into this like a lot, but I don't see myself doing something as fun as this. Second, ideology makes me sick. I mean, no, I like ideology in the sense that we live…we all have a certain degree of ideology…we live in an ideological context…but arbitrary, nonsense, and ill-considered decisions makes me sick. For example, religious ideology makes me sick, I also detest political ideology…and I see that economics is a good answer to ideology. What does economics allow you to do? To say: the cost of your ideology is this. You don't like for-profit schools? Ok, your ideology is fine, but it's going to cost you this. So it [economics] allows you to put a counterweight to ideology. [00:56:02]

This long excerpt does not only offer an instance of doublethink where opposite stances are co-present ("ideology makes me sick. I mean, no, I like ideology"); but also something that sheds light upon the core of the present article: the purposefulness of doublethink, understood as a lack of logical consistency. For here, it is possible to see how the participant entwines together two dimensions, scientific and ideological, within *his personal take on the role of economist*. And this articulation is made—as the latter excerpt shows—because both are important and necessary elements for *him* being an economist. As he expressed along both interviews, ideologies are ubiquitous in human life, as they give normative orientations to all of our actions; and he does not see economics as neutral on ideological grounds either, as it advocates for less costs—efficiency, in his words—in a *normative* rather than an empirical way. This standpoint on ideology, and its deep implications for economics and economists, however, does not lead him to blindly embrace any form of it either. He declares to detest political or religious orientations that lead to "arbitrary, nonsense, and ill-considered decisions". Moreover, this position does not bar him either from being aware that normative orientations do have economic, monetary implications on the social world, something he defines as "costs". And, for him, economics is the most accurate approach to assess these costs; but not to determine which costs *should* be assumed, as this is normative ground—like the debate of for- or non-profit schools. It is in this sense that economics is a counterweight to ideology *and vice versa*.

Thus presented, it seems quite reasonable for human scientists that inform social debates and public policies, like economists, to have a broader scope than scientific arguments only—something that, as mentioned above, was clear to early economists. Yet the personal articulation made by the participant, which assumes that economics has normative orientations, is made in spite of the contemporary, front-office economist role; which longs for empirical scientism—viz. reveal what data says—and rejects any form of ideological thinking—as current trends in publications in top economic journals make clear. Furthermore, presenting economics just as a consulting voice, among others, informing social decision makers is especially controversial for Chilean economists, whom—at least for the last 40 years—have had a major, overt impact on public policy decisions—and even politics—precisely by endorsing a technocratic stance (for historical reviews see Markoff & Montecinos, 1993, and Silva, 2009; for a contemporary example see Larroulet, 2016). Considering this cultural background, while it might seem reasonable for outsiders, it does not seem feasible for academic and professional Chilean economists to hold such an integrative stance—particularly for somebody that is looking to make his way into academia. And here is where doublethink, for this example, does not appear as a mere illogical way of thinking, but rather as a useful approach.

To make this point clearer it is necessary to go back to El-Sawad, Arnold, and Cohen's (2004) previous ideas. As these authors note: "participants in our study have more than one personal narrative" (p. 1198); which, as seen, is the case of the participant analyzed. Additionally, they claim that: "whilst each individual narrative

may be internally consistent and coherent, it frequently conflicts with and contradicts other narratives which the individual articulates" (p. 1198), something that the first interview clearly portrays. And, more importantly for the aim of the present work, these authors see: "*security* as deriving from keeping separate or bracketing these contradictory and conflicting dimensions" (p. 1198, emphasis added) rather than confronting them to 'reduce cognitive dissonance'. For the participant analyzed, this security seems to be no other thing than the possibility of tailoring his role of economist, following both *his own particular view* of the discipline and the role that is culturally and institutionally presented to him as correct. Hence, doublethink appears here as a meaningful, personal way of both *resisting* the latter and *endorsing* the former. Furthermore, just as El-Sawad et al. propose (2004), the participant analyzed reaches such security by keeping these two dimensions of being economist, and its associated narratives, isolated and bracketed from each other; even when he tries to make himself clear to somebody else, and with minor exceptions—as excerpts from the second interview reveal.

CONCLUSION: INCONSISTENCY FOR WHOM?

As initially noted, the psychological implications of resistance span well beyond a plain, stubborn 'no'. This idea, clearly portrayed by several works in the present volume (e.g. Cavada, this volume; Konwar & Bhargava, this volume; Sharma, this volume), could be elaborated through Valsiner's (2014) A<>non-A principle. This principle poses that any meaning created and sustained around an element A is necessarily tied to all those elements we consider as opposed to it, i.e. non-A. Thus, as sometimes hooliganism reminds us, in order to stand for something, it is also required to stand against whatever is considered opposed to it.

Interestingly, such resistance might take many forms, some of them even contradictory, as positions that are intended to be resisted are simultaneously endorsed. Looking for the purposefulness of such 'inconsistent' phenomena made us look beyond the abundant literature that flags as problematic any psychological action that does not conform to logical standards (e.g. Daniel, Schiefer & Knafo, 2012; Festinger, 1962; Higgins, 1987). From this conceptual exploration two notions emerged as pointing to the usefulness of resisting but at the same time endorsing something: cognitive polyphasia (Moscovici, 2008) and doublethink (Orwell, 2013). The former, as part of the Social Representation Theory, provided a general perspective of how often our ordinary, everyday thinking does not strictly follow the rules established by logic; and, given this, it could be—and usually is—contradictory between its different discursive forms. Doublethink complemented the former by shedding light upon how—and why—contradicting oneself within the same account might not create any psychological or experiential uneasiness.

In order to deepen why somebody might resort to doublethink, two interviews with a young economist were analyzed. This example brought forward what is expected from scientists in general, and economists in specific, thus revealing the tensions

existing between their public, 'lab-coated' presentation and the personal, committed nature of their everyday work. Regarding this tension, several interview excerpts showed how the participant shifted between endorsing an objectivistic, technocratic standpoint on economics, and a perspective that considers ideology and normative orientations as constitutive of the works of economics. These positions, clearly opposed to each other, reveal a quite particular standpoint of the participant regarding his discipline: both embracing its mainstream and making a fundamental critique to it. As shown by the excerpts, the way in which he held these stances was not a display of cynicism, as they appeared to be isolated from each other. By keeping them separated, it seemed possible for him both to comply with the formal requirements to succeed in economics' academia, and also to imprint a personal perspective to this official role—by adding a normative insight into a technical discipline.

Summarizing, I considered doublethink as a subtle, meaningful way of resisting certain dimensions of a role that must be accepted in order to properly enact that role. Following this, I propose that this process hints on how roles, like the one of economist, are not merely socio-institutional constructions to be unquestionably accepted and endorsed. Quite differently, they appear to be accepted and endorsed although in ways that are *personally meaningful*—as an active internalization/externalization process (Valsiner, 2006). As shown by the participant, being an economist implies looking for the most precise—i.e. mathematic—ways of understanding and addressing social issues; which are undoubtedly part of the official economics manifesto. Yet, for him, the latter could not be done neglecting the normative, ideological orientations that these approaches to social matters imply—even though if this personal commitment is considered as a source of unscientific bias. A number of questions emerge out of this conclusion: first and foremost, to understand in which ways this personally-oriented construction of the scientific role has an impact in the scientific production, and therefore how the former shed lights on understanding the latter; also, where are the limits that keeps such personal, normative involvement away from turning the scientific activity in self-validation circle. Although relevant, all these inquiries ought to be addressed in future works, as they exceed the scope of the present chapter.

In a previously mentioned article, Wagner et al. (2000) claim that: "It is in the context of different life-worlds that holding on to 'contradictory' representations make sense." (p. 303) Looking at the case discussed, it is possible to say otherwise: within the same life-world, and even within the same role, it is possible, and sometimes very reasonable, to hold on to stances that oppose to each other. Therefore, for the study of resistance, doublethink offer an understanding of so-called inconsistent positions, re-framing them as an alternative way of making sense about heterogeneous realms of the social world. Hence, resisting against something or somebody does not necessarily imply a dogmatic positioning, but also flexible, context-bounded stances where resistances are also present. For the study of science, especially those disciplines concerning human phenomena, doublethink appears as

another form of making knowledge—and its construction—personal (Polanyi, 1974).

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CHAPTER 7. EITHER SCHOLAR OR ACTIVIST? THINKING CULTURAL PSYCHOLOGY BEYOND ACADEMIA

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EITHER SCHOLAR OR ACTIVIST?

THINKING CULTURAL PSYCHOLOGY BEYOND ACADEMIA

David Carré

Abstract

Both Robert Innis's and Svend Brinkmann's works bring to the fore a notorious, but usually forgotten, topic on cultural psychology: the normative framework that regulates the relation between the researcher and the phenomena studied. Yet these models of human flourishing, using authors' terminology, are scarcely discussed in comparison to theoretical, methodological, and empirical issues.

In the present paper, a number of potential reasons for this omission are explored. In particular, it is argued that discussing the normative and pragmatic side of the discipline appears as risky in two directions: turning cultural psychology into activism, and conducting value-laden research. For this purpose, the controversial case of Arthur Jensen's 1969 publication on IQ is discussed. This example is useful to reveal the challenges that cultural psychology must face in order to become more aware of its normative orientations; particularly the pragmatic, social impact associated to conduct research on human matters. Ultimately, it is shown that these apparent risks emerge from implicit, outdated conceptions of both activism and scientific activity.

Keywords: value-orientation, normative framework, scientific role, activism, Arthur Jensen

In his impeccable "Between philosophy and cultural psychology: Pragmatist and Semiotic Reflections on the Thresholds of Sense", Robert Innis (2016) covers with unusual theoretical depth a number of the most challenging questions for the advance of cultural psychology [1]—from meaning, to affect, to semiosis, to materiality. As the title of his work indicates, Innis addresses these multiple issues

[1] In this paper, the use of cultural psychology as a singular term follows the considerations proposed by Valsiner (2015). In brief, this means that the use of the singular form—cultural psychology—does not assume by any means the existence of a homogeneous unity among the manifold trends converging under the umbrella of 'culture'. On the contrary, by acknowledging the existence of different cultural psycholog*ies*, the use of the generic term cultural psychology aims to appeal to any reader that feels identified with the ideas here expressed—rather than reinforce divisions.

through the concept of 'thresholds of sense', i.e. "the fundamental matrices in which meaning arises for human beings and gets embodied in cultural forms" (p. 9); which for the author also is "the principal theme of cultural psychology and of a philosophical semiotics." (p. 9) Notwithstanding his minute attention to theory, Innis makes clear along his work that conceptual issues—especially the sometimes-convoluted alleys of semiotics—are far from being the only knots that cultural psychology must face as a discipline centered in human matters. In fact, as he convincingly argues (pp. 7, 29, 41, *et passim*), one of the main challenges for the conceptualizations made by cultural psychology is dealing with "an essential tension between *analysis and advocacy*" (p. 21, emphasis added).

Regarding this tension, Innis (2016) keenly claims that: "(…) cultural psychology as a companion human science is not, indeed cannot be, indifferent to human practices and should not consider them merely as exhibits in a kind of museum of curiosities, examined for our amusement or professional or political advancement" (p. 7). Thus, an analytic, distant position to human phenomena does not suffice as the general orientation of the discipline. However, the author also notes that: "(…) in light of the great variation in value schemes, which cultural psychology has studied and uncovered, it is problematic just where cultural psychology is to look for a normative frame or just what such a frame would look like." (p. 7) In this sense, it is anything but clear what would be the exact set of values, and associated human practices, that cultural psychology should advocate for. Ultimately, this tension is summed-up by Innis in a striking question: "How, then, are we as reflective inquirers to balance tolerance and sympathetic understanding with critical recoil and disapproval when faced with the horrors of history's butcher block, to allude to Hegel's provocative remark?" (p. 8)

Through this question, Innis (2016) fully exposes the complexities that cultural psychology faces when understanding and acting within the social world. First and foremost, as a human science, the discipline cannot stand apart, indifferent to the human practices and meaning-making processes that addresses. However, cultural psychology—in particular—has emphasized through its manifold research how diverse such phenomena can be[2]. Innis (2016), however, notes that within such diversity "(…) what matters for most is themselves and their conception of themselves as well as the conception others have of them" (p. 6); thus emphasizing the perennial relevance of phenomenology and self-interpretation for the discipline. Yet, as seen, validating and acknowledging the existence of diversity, i.e. an analytic-descriptive role, is far from unequivocally set *what* difference is cultural psychology trying to make in the world.

[2] Diversity that could be observed from practices that heavily depend on the immediate situation (e.g. Mahli, Boon & Rogers, 2009), to meaning-making processes that remain stable over time (e.g. Manuti, Scardigno & Mininni, 2016), to semiotics resources that help in coping with change (e.g. Zittoun, Duveen, Gillespie, Ivinson & Psaltis, 2003). In sum, human diversity that goes way beyond plain cross-national variation of a certain construct (viz. Buss et al., 1990)

Therefore, going back to Innis's analysis-advocacy tension (2016), it seems aporetic to theoretically or empirically determine what should be the framework for the discipline to support and promote. Such impossibility, Innis claims, is based in a rather simple reason: determining the approach of the discipline to the multifarious nature of human, cultural life is a *normative* rather than a positive, empirical issue. In his words: "As I see it, the point of cultural psychology, and of a great part of philosophy, is not purely theoretical or contemplative, and it is *not value-free*." (2016, p. 6, emphasis added)

It is at this point—the normative nature of (cultural) psychology—where the ideas developed by Innis (2016) converge with those expressed by Svend Brinkmann in his *Cultural psychology and its values* (2016). There, he presents a thorough argumentation on why psychology at large—and cultural psychology in particular—are ultimately normative disciplines. On this Brinkmann (2016) says that: "I agree with Innis that psychologists, cultural and otherwise, simply cannot do psychology without presupposing some ideal of human flourishing, or normativity more generally, which can of course be more or less implicit." (p. 2) Furthermore, he presents the opposite case, namely what would be a psychology without a normative framework: "Without moral normativity, psychology degenerates into physiology or perhaps neuroscience. The organs of the body simply function or not, and the synapses of the brain simply fire or not; they have no reason for doing what they do (and thus demand causal explanation)." (p. 6) In brief, as also noted by Innis (2016, p. 6), the author makes clear that any attempt to strip (cultural) psychology out of any normative framework will lead the discipline astray—into a purely contemplative role. Following this, Brinkmann (2016) proposes two universal, yet thin sources of normativity for the discipline: Holiday's *core-language games* (p. 10), namely truth-telling, justice, and ritual language games; and Løgstrup's *ethical demand* (p. 12).

Summarizing, both Innis's (2016) and Brinkmann's (2016) reflections are inviting us to think and discuss cultural psychology outside its usual academic box—into pragmatic and normative terms. This does not mean to abandon theories, methodologies, and empirical data, in the least. It rather stands as a reminder that all the latter necessarily exist in connection to broader ethical, social perspectives toward the phenomena studied, which ultimately express the interest and personal commitment of the practitioners behind the discipline[3]. This is even clearer in Innis's remark (2016, p. 7) on how cultural psychology does not seem—nor want—to follow the path that Wittgenstein drew for analytic philosophy[4], namely just

[3] Even though this idea will not be further elaborated here, it should be given the utmost consideration. In this sense, the discussion on how cultural psychology inserts in the social world bypasses the whole question for cultural psycholog*ists*, i.e. how is it that, in the first place, a number of persons become interested and devote most of their professional careers to this approach. Taking this issue for granted must not be read as downplaying it—yet another time—, but just as a way for keeping the scope for this article manageable.

[4] Incidentally, the spirit of Innis's paper resembles a different assertion from Wittgenstein, namely: "Our knowledge forms an enormous system. And only within this system has a

clearing *conceptual* confusions and leaving everything in the world as it is. Innis (2016), on the contrary, places cultural psychology along a pragmatist orientation of philosophy, in which: "The 'problems of philosophy' should be, and are, *our* problems, vitally important issues embedded in what John Dewey called 'problematic situations' that bear upon what for the pragmatist tradition are the defining matrices for 'the conduct of life.'" (p. 1, emphasis in the original)

Furthermore, considering that: "The cultural psychologist, as inquirer, is also informed by a world-picture and a self-picture and a schema of values, which *informs inquiry in its role as a proponent and model of human flourishing*." (Innis, 2016, pp. 5-6, emphasis added), it is puzzling to think how seldom open discussions on such model(s) are hold. Although, as Brinkmann (2016) notes, normative perspectives toward human flourishing "can of course be more or less implicit" (p. 2), the question remains: why it has been so complicated for cultural psychologists to overtly discuss the *impact* that the discipline is ultimately trying to make in the world through its research?

Such difficulty is probably related to the concerns that this question likely arises: "does it imply that cultural psychology is a covert form of activism?" Or maybe, "is this a form of advocating for doing biased, value-laden research where the ends justify the means?" In the following I look to tackle these concerns in order to show that discussing on the pragmatic side of cultural psychology, and its potential social impact is definitely necessary—and probably overdue. For this purpose, it becomes necessary to complement the ideas presented by Innis (2016) and Brinkmann (2016), specifically by thinking on cultural psychology's normative framework as something tightly connected to the multiple social worlds where the discipline exists—as it might have concrete impact on those environments.

HUMAN SCIENTISTS: EITHER SCHOLARS OR ACTIVISTS?

The first of the concerns mentioned above, the risk of activism, is an issue that does not haunt cultural psychology only but social sciences and humanities at large[5]. In brief, this relates to the reasonable suspicion on whether social research is being conducted to reveal something unknown from the human-cultural world, or just to give support to a certain group of interests—through the rhetorical power that science gives (see Hilgartner, 2000). In terms of Innis (2016) and Brinkmann (2016), for cultural psychology this could represent the risk of a normative

particular bit the value we give it" (1969, p. 52, §410). If anything, through his article Robert Innis has brought 'the knowledge system' of cultural psychology into debate. And he succeeds in this precisely by thinking outside of the common, academic concerns of the discipline in order to discuss its general direction.

[5] In fact, this matter spans way beyond 'soft' sciences like arts or humanities. As 20th century history shows, disciplines like biology or medicine might become political instruments considerably more sharp and dangerous—as during the Nazi regime (see Haas, 2008).

framework that does not orient or complement the inquiry anymore, but rather turns the latter into a mere instrument for spreading the former.

For instance, let us consider the paper written by Arthur Jensen in 1969: "How Much Can We Boost IQ and Scholastic Achievement?" Despite its apparent educational title, in this paper Jensen (1969) put forward the controversial argument that the observed IQ gap between white-skinned and black-skinned school-aged children is ultimately based on genetic rather than environmental factors. Two implications, according to him, follow from this finding: first, there is no point in making any instructional, pedagogical effort to shorten this gap, like the US Head Start Program (see Bierman et al., 2008); secondly, white-skinned people have an overall greater IQ, and therefore are essentially more intelligent than black-skinned persons. As expected, social and academic outrage broke out against Jensen's (1969) ideas—even more so in a decade marked by the Civil Rights Movement in the United States. Thus in a case like this the question emerges naturally: did Jensen just present his findings based on available psychometrical data? Or was he rather trying to defend an alleged racial superiority of white-skinned people based on resources that he knew would be appealing to the public debate?

On this, Jensen promptly reacted by claiming that he was presenting unbiased research. Accordingly, he actively defended his postulates against its critics, claiming that, in fact, they were the ones conveying an obscured political agenda—particularly Stephen J. Gould and his 'Marxist sociology of science' (see Jensen, 1982). As of 2006, six years before passing, he kept his position almost untouched (Rushton & Jensen, 2006). However, according to Miller (1994), Jensen received major funding over three decades from the Pioneer Fund. This grantor has been highlighted as a common funding source for research oriented to promote studies on race and biological determinism, which usually show how white-skinned populations excel above those black-skinned. Altogether, there is reasonable evidence for considering any of the two positions as viable options. Hence, it does not seem possible to determine for certain what was the *role* actually played by Jensen: either a truth-seeker human scientist or an interested activist. Not unless we read between the lines of this dichotomy.

In order to be presented as dichotomic, the former roles—scientist and activist—must firstly be established as contradictory positions. Being or acting like one needs to make impossible be or act like the other. Yet, why do we promptly assume that the role of scientist is *mutually exclusive* to the role of an activist? While I certainly agree with the distinction between what a scientist—human or otherwise—does, and the preparation required for becoming one, from what activism involves, it is clear that this is not the same of assuming them as opposites. This is why mutual exclusiveness, i.e. having absolutely nothing in common, is crucial for this matter. A strong reason for assuming such relation for activists and scientists is the lay image we have of them. For the former, it is likely to portray them as a crowd of people carrying signs in a demonstration, pushing forward an idea or cause with absolute certainty—if not fanaticism. For the latter, on the other hand, we probably think in

phlegmatic persons that speak only through the results of their research—acknowledging its potential limitations and completely open to change their minds. If so depicted, there is little doubt that they should be seen as complete opposites.

However, if less cartoonish images are presented both for scientists and activists, this absolute opposition becomes less evident. For instance, taking into the account the thorough work made by Shapin (2008) in his "The Scientific Life", we come to learn that the uptight, composed image of the scientist is mostly a necessary public projection. Which does not make it false by any means, but it certainly reveals how incomplete it is in relation to the considerably messier backstage work that leads to neat, publishable results. Interestingly, a relevant part of this backstage is subtly captured by Shapin's book (2008) subtitle —"A Moral History of a Late Modern Vocation". Doing a similar exercise with the case of the activist, the abovementioned image of an unthinking demonstrator just does not make justice to the achievements that activist movements have reached. What connects, for example, movements like the US Civil Rights with South Africa's Anti-apartheid are not only exceptional leaders—King and Mandela—but also that those who participated in them remained adamant behind the (normative) idea of considering all persons as equals, regardless of their skin color. In the opposite direction, it is worth noting how many communist activists in France changed their views after coming to know the atrocities of Stalin's regime (see Judt, 2010). This latter case shows that advocating for an idea does not equal either to be blind to its consequences or becoming unable to change positions about it over time. Thus presented, activism could also be associated to social change rather than an uncritical stand toward social issues. Hence, the previously mentioned 'risk of activism' for cultural psychology might be such only if only an extreme form of activism is assumed.

When all the former is taken into account, thus seeing scientists as not so aseptic and activists as less radical, it becomes interesting to go back to the controversial work of Jensen (1969) and think again about his role. Looking from the more nuanced perspective presented, it does not appear as contradictory—or mutually exclusive—to think about a scientist whose work is done according to a given normative framework. On the contrary, it becomes odd to think about a human scientist that conducts his or her research with no interest, or position towards the phenomena at stake; which, as seen, does not equate to take a radical position that involves making up data and conclusions in order to validate such perspective. Ultimately, the former was exactly the point made both by Brinkmann (2016) and Innis (2016): it is not possible to think human sciences—and therefore human scientists—without a normative frame orienting them. Therefore, the second of the risks mentioned at the beginning of this section, namely promoting value-laden research, appears as a reminder of an aseptic view of the scientific activity (cf. Shapin, 2008) rather than a reasonable concern for cultural psychology.

However, the Jensen's controversy presents even another angle, which should not be left out of consideration: the fact that the set of values endorsed by Jensen, in one

way or another, promoted racism. This is a necessary reminder that the effort made in this article, namely showing that human scientists are—and should be—involved and partake in the social environments they dwell, does not imply that any form of participation must be uncritically supported—regardless of its pragmatic consequences. Yet where should that line exactly be drawn for cultural psychologists, is something that escapes this work. Therefore, and regrettably, the question that puzzled Innis (2016), and for which Brinkmann (2016) offered thin guidelines—what is *the* normative framework for cultural psychology to endorse—, remains unanswered in this article. However, a new element has been added to this question: there is no possibility for discussing such set of values without looking at its concrete effects in the social world.

CONCLUDING REMARKS

Why to bring forth the case of Arthur Jensen? What has to do a 45 years old controversy that involved an IQ psychometrist with contemporary cultural psychology? While the example presented is certainly distant from cultural psychology in many respects, it is undoubtedly helpful for looking at the challenges implied in making our discipline more aware of its models of human flourishing—as proposed by Brinkmann (2016) and Innis (2016)—but also of its social implications. As a whole, the case of Jensen presents a mixture where the social influence of human sciences, the values orienting this research, and the pragmatic consequences implied of it, all converge at the same time. It certainly is an extreme case, where all the later is polarized—high influence, racism, and notorious consequences—; but it is precisely this what should make easier for cultural psychologists to look at the stakes involved in this activity. Even if, at the moment, cultural psychology has an ephemeral value at the epistemic market[6] (Valsiner, 2009).

In sum, and contrary to the popular belief, it seems that there is no—and never has been—such thing as an ivory tower. At worst, it might be a metaphor for the disconnection between academia and the issues that are pressing for the social world. But presenting members of academia—cultural psychologists included—as persons that are not related to any worldly matters is definitely misleading of how contemporary science works. In this sense, looking for a normative framework for cultural psychology is, at the same time, a search for a reference for conducting research, and also guidelines on how to make a difference in the social word. As noted by Brinkmann (2016), moral orientations are not just rules to know observe, but the basis for conducting in everyday life.

[6] Given the scope of this article, it is not possible to expand on the sociological aspects of the knowledge crafted by different cultural psychologies. Regrettably, there has been little attention to this beyond Valsiner's "A Guided Science: History of Psychology on the Mirror of Its Making" (2012).

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CHAPTER 8. GENERAL CONCLUSIONS

In this final chapter I elaborate on the general ideas that stem from this research project as a whole. In this sense, while I begin with an integrative summary of the manuscripts presented in the previous chapters, I aim to go beyond this. Therefore, after the recapitulation of the main ideas presented thus far, I elaborate on three aspects that concern these ideas directly. The first of them are two critiques, which question, first, to what extent human and social sciences are really capable of conducting studies on disciplines that are not their own, and, second, whether a person-centered approach—like the cultural psychology of science proposed—promotes an elitist perspective, which obscures the view of scientific activity or not. After addressing these sharp critiques, I discuss an underlying social risk involved in conducting research like science studies. Even though psychological ideas have 'little value in epistemic markets' (Valsiner, 2012), and thus they have a very limited impact beyond academia, the possibility of considering this thesis as fuel for the contemporary 'people have had enough of experts' motto needs to be addressed—and dispelled—head-on. Finally, the closing remarks of this thesis are devoted to the limitations and future directions of the ideas here presented. Thus, I first discuss the possibility of addressing the concepts and results exposed in this dissertation through alternative approaches, in an effort to connect this work to other forms of psychological inquiry. After this, I explore in which directions these ideas could make further progress in future studies.

SUMMARY

As mentioned at the beginning of this thesis, Chapter 3, *Looking for happiness, finding economic growth: The Chilean transition to democracy* presented the historical contextualization in which the present research is embedded. Through a detailed account of the major social and political events from 1965 to the current days in Chile, this chapter is essential to understand the very particular circumstances in which economists became central actors for the country. This context was a contingent dictatorship that had as its main goal ousting a communist government. Once it accomplished that—breaking the democratic rule of the country in the process—it lacked any further plans for the country regarding social or economic development. In this particular situation of full control over the country with lack of governance direction, just as a participant described in Chapter 5, economists—with the explicit support of the regime—took over almost every intellectual and government space. From there, they imprinted an economic, for-profit rationality to social areas that ranged from utilities, to infrastructure, to healthcare, to pensions, to urban planning. One of the main conclusions that Chapter 3 presents is that, even if the origin of the massive influence of economists was connected to the 1973–1990 dictatorship, it certainly *did not stop with the return of democratic governments* to the country. In this sense, the 'pragmatic' agenda that organized 20 years of *Concertación* governments (1990–2010) clearly reflects how

economic criteria remained as the golden rule of governance. In one sentence: economic growth before human development. As noted, this trend remained stable until 2011, when massive grassroots movements ultimately demanded to change the core of this principle, thus asking to return to state-provided social services that do not depend of the wealth of the beneficiary. Moreover, this chapter also explored the implications that this over expanded economic logic has had for the democratization of the social debate in Chile. This point is of special relevance to contextualize the discussion of Chapter 7. At the same time, Chapter 3, as a whole, provides an essential background for fully grasping many of the elliptical references contained in the excerpts of Chapter 5.

In a very different tone from the previous chapter, Chapter 4 elaborates the main theoretical grounds of this dissertation. For this purpose, an extended literature review of the main approaches to the phenomenon of science is first presented: namely, the philosophy, sociology, and psychology of science. This analysis of the literature reveals that through the different emphasis of these ways of studying science—epistemological, social, cognitive and individual, respectively—there has been a consistent downplaying of the role of the scientists, as purposeful persons, on the creation of novel scientific knowledge. The reasons for this neglect, as is also shown in Chapter 5, revolve around the assumption that this personal participation is either a risk for the objective nature of science, or plainly something that could be subsumed into collective elements. In order to reveal the centrality of the scientist for scientific activity, a new theoretical approach was proposed: a *cultural psychology of science*. This approach, however, does not resort to the same individualistic psychological approaches used in previously psychological studies of science. For this purpose, a cultural psychological approach was used, given the socio-cultural sensitivity that it puts forward. The latter is complemented by the theory of personal knowledge, which emphasizes the central role of the personal commitments of scientists over the ways in which they construct knowledge—without compromising or suspending the quest for objectivity. In sum, this cultural psychology of science proposes the *centrality of an active, purpose-oriented scientist that constructively transforms culturally available meanings in order to create novel, objective knowledge; even if the former does not conform to the standards set by the socio-cultural environment*. To a large extent, this literature review is a systematized presentation of my personal experience getting into and making sense the particular human phenomenon that scientific activity is, as initially described in Chapter 1. Moreover, Chapter 4 represents the theoretical backbone of the whole thesis, and so ideas and findings contained in other chapters should be understood from this perspective.

Chapter 5 represents the main compendium of the empirical research conducted in the present thesis. While this chapter is a self-contained manuscript, it is certainly illuminated by the ideas presented in Chapter 2, as it provides further context about the research process behind these result. The central element of Chapter 5 is the thematic analysis that systematized and organized my encounters and conversations with 25 economists in Chile. Through this analysis, three main themes were clear in

these conversations: the influence of economists in Chile, definitions of economics, and economics as personal activity. Quite contrary to the unitary portrayal of economists in Chile—which could also be appreciated in the tone of the sources used in Chapter 3—, this analysis made clear the existence of an enormous diversity of perspectives among the economists interviewed. With the sole exception of the role of economists in Chile, which all but one participant deemed as massive. Regarding this diversity, it was also possible to observe a strong presence of self-criticism of participants towards many aspects of how the discipline is done and used in Chile. Among these critiques, one emerged as the most notorious: the concerns of fellow economists letting their normative orientations influence their work, as this would make it politics rather than scientific economics. This point is crucial, as it directly points to the relevance of personal commitments for scientific activity outlined in Chapter 4. Furthermore, this imagined border separating the economist's work from the citizen's opinion is the main issue discussed in Chapter 7. The relevance of this point led to the in-depth analysis of a particular case, which showed with special richness how normative elements, as personal commitments, weaved together social views of the participant, her research as economist, and the institution in which she worked.

In a similar fashion, and directly connected to the latter topic, Chapter 6 focused on the analysis of a single and interesting case. This case provided a clear example of the abovementioned tension between normative elements, like ideological positions, and the aseptic, technical character for the interviewed economists. This tension, in particular, led to the participant analyzed to construct a dual position in which both elements were co-present, yet discursively separated. The latter was analyzed through the concept of doublethink, which ultimately emphasizes the constructive, meaningful character of this strategy—instead of bashing it as a logical inconsistency. Thus, the analysis conducted in Chapter 6 presents a good example of how the theoretical proposal of Chapter 4 could be applied to approach scientific activity in a psychological, yet not necessarily cognitivist way.

Finally, Chapter 7 addressed a very specific issue in comparison to previous chapters: how to define the limit between a normative-oriented position, the 'activist', and the scientific-oriented position, the 'scholar'. In particular, this chapter discussed whether such distinction could—and should—be applied to social sciences, in which the researcher is in fact part of the phenomenon. To analyze this issue, this chapter described the popular views around scientists, i.e. the purely-rational, lab-coated individual that only cares about yielding objective results. This rather mythical view is critically analyzed in an effort not for showing the lack of objectivity of scientists, but to have a perspective of scientific activity that is more grounded in concrete experiences of scientists—as this whole dissertation does. Therefore, this chapter shows how, for researchers of social and human sciences, it is pretty absurd to pretend that it is only possible to be a radical activist or an armchair scholar. This analysis is certainly connected to the concerns expressed by several participants in Chapter 5 regarding the 'contamination' of economic research with normative elements. Ironically, and following the ideas presented in

Chapter 7, these same participants did not see any problem in having very concrete personal interests and social concerns that they wanted to influence through their own research. In relation to the broader historical context of this thesis, described in Chapter 3, the ideas discussed here are a more general analysis of the social participation that economists have had in Chile during recent decades.

As seen, the ideas, findings, and reflections presented along the previous chapters are tightly interconnected. Ultimately, from different perspectives and approaches, they all contribute to observe how relevant is considering the person of the scientist to properly understand the process of how scientific knowledge is created.

POTENTIAL CRITIQUES TO THESE IDEAS

In this sub-section, I address two critiques that, as noted at the beginning of this final chapter, could be directed to the conceptualizations and findings just summarized. The first critique concerns critical studies of science at large, while the second is specific to the person-centered approach to scientific activity proposed in this thesis.

The first, more general critique could be based on the ideas of Bauer (2000), who basically questioned the aptitude of the social sciences and humanities for conducting any study of scientific activity beyond their own—our—disciplines. The rationale for this critique, according to Bauer (2000), is the fact these disciplines are inherently not unified in their theories, methodologies, and research practices. Therefore, they have trouble grasping the fundamental aspiration of physical and exact sciences for creating universal consensus, based on hard facts.

It is necessary to note that this critique was made in the aftermath of the so-called 'science wars' (Segerstråle, 2000). Thus, Bauer's (2000) critique was specifically directed to the more radical forms of constructivism within science and technology studies, which basically proposed that science is a mere rhetoric fiction, not really different from witchcraft or common sense. Despite that more narrow focus, I consider this as an incredible strong critique to science studies at large regarding the issue of how we, as outsiders to a discipline, create a critical view of knowledge and practices that, in comparison, we barely understand.

To address this critique, the first step is acknowledging this lack of belongingness; this is why I presented my personal experience of being an outsider to economics in Chapter 2. This step is essential to make us, as researchers inquiring other disciplines, reflect about the preconceptions and previous experiences that have shaped our understanding of what is science and how it is done. Otherwise, as Bauer (2000) noted, it is very likely to assume that every discipline and scientific community should work just as the one we come from. Moreover, this sensitivity to diversity only makes stronger the case for not imposing external, blanket views—as

the 'almighty' economists (Heredia, 2011)—, but to build upon concrete, hands-on experiences of participants.

The second critique comes from a Fuchs' (2000) remark: "*it may be the more personal, tacit, subjective, and emotional aspects of knowing that (...) are associated with elitism and social power. For the more personal and emotional one's standpoint becomes, the less it remains subject to public inspection and critical appraisal.*" (p. 166) Just by looking at the language used by Fuchs (2000), it is clear that the specific target of this critique is Polanyi's personal and tacit knowledge ideas—which, as noted in Chapter 4, are central for the theoretical approach proposed. Furthermore, this critique also reaches to the whole project of having a more person-centered approach to scientific activity.

Therefore, it results mandatory to explain why I do not consider that focusing on the personal experience of scientists is a promotion of secretive elitism in any form. In the first place, Fuchs' (2000) assumption about the 'personal and emotional' dimensions of scientific activity as something inherently cumbersome does not seem to be based in any particular argument, for him it seems to be an 'obvious' fact. As this thesis has largely shown, if these aspects appear as mysterious and not related to scientific activity it is mostly because they have been consistently neglected and downplayed. Moreover, as proposed in Chapter 4, the presence of personal commitments and motivations in the doing of science it is something that *promotes* to quest for objective knowledge. While including the personal dimension certainly adds a layer of complexity, this is not a proper argument to discard it and assume that scientific activity is just composed by standard technical procedures. If anything, Fuchs' (2000) critique hints in an important direction, namely the importance of making scientific activity open to be discussed and analyzed by people external to it, be it science scholars or the public. As discussed in Chapter 3, should economists in Chile have invited citizenry to discuss about their practices and findings, it is not very likely that the grassroots movements of 2011 had erupted as they did.

UNDERLYING RISKS OF SCIENCE STUDIES

As part of the closing remarks of this dissertation, I discuss a potential social risk underlying the ideas presented along this work, which also pertains studies of science at large. The core of this risk is the possibility of assuming that a person-centered understanding of science ultimately aims to portray science as a completely biased, non-objective, and power-driven activity. Even if that was the spirit of the 'anti-science' camp during the science wars (Segerstråle, 2000), it is definitely not the intention of the present dissertation—as repeatedly mentioned in previous chapters.

Yet, I perceive that, despite this disclaimer, there is nonetheless a risk in these ideas given a particular context of the present times, the so-called 'post-truth' society.

This 'society' could be described as a collective *zeitgeist* of late-capitalist, Western societies in which, as the UK politician Michael Gove summarized: "people (…) have had enough of experts" (quoted in Mance, 2016). Thus, for different reasons, the expert advice of technical experts and scientists seems to be regarded as the source of many of the problems that citizens in these societies perceive as central. In fact, this very notion could be very well applied to the historical context of this thesis, namely the massive influence of economists in Chile, which have restricted the social debate only to those capable of elaborating ideas in terms of the language of economics, as described in Chapter 3. In this kind of social context, the ideas and findings here presented could well fuel the perception that experts, like economists, are 'not so objective as they claim' and thus their input should be discarded altogether from the social debate; placing in citizens the whole responsibility to decide the public policies that shape their lives.

While I advocated for *similar* ideas in Chapter 3, in any case I considered that the work and research should be completely discarded. I rather proposed, for the case of Chile, to moderate an influence that has completely excluded citizenry from the social debate. Moreover, as noted in repeated occasions, the cultural psychology of science proposed is a way of understanding how the quest for objectivity is a crucial element for scientific activity, as scientists appropriate it as their own commitment.

LIMITATIONS & FUTURE DIRECTIONS OF RESEARCH

Regarding the limitations of the ideas presented here, I perceived them in two directions, theoretical and empirical. On the theoretical angle, the cultural psychology of science proposed, and the whole idea of making clear the involvement of the scientists into his or her scientific work, certainly fits the particularities of human and social sciences. In the case of these disciplines, as discussed in Chapter 7, the researcher is ultimately part of the object of study of his or her research, thus making it almost impossible to make a clear demarcation between them. However, I am not certain that the same applies for material and logical sciences, precisely because the object of inquiry *could* be perceived by researchers as something completely independent and detached from their own life. While Polanyi (1962) argues *in extenso* about how this is not the case for these disciplines, I think that such assumption should be tested through empirical means, i.e. through direct encounters with scientists creating knowledge in these fields.

About the empirical work conducted in this thesis, I think that its main limitation relates to how generalizable are the findings presented. Even though the views and experiences described were triangulated among different participants in order to identify recurrent patterns, I still perceive there is a risk in assuming this work as sort of 'census' about economists in Chile. Just as one participant expressed at the end of an interview: "*I hope you do not take my interview and then write about 'what all economists in Chile think', because I talked to you about my very particular views, and nothing more*". While blanket conclusions about 'economists

in Chile', as a unitary group, have been avoided as much as possible, this is certainly a limitation of these results.

I think that in between the limitations and the future directions of this thesis it is important to state that, by no means, the present work has intended to claim that this topic or these empirical results could only be understood through the approach proposed here. On the contrary, I consider that is certainly possible—and probably beneficial—to address this topic and data from different perspectives. For instance, Markova's (2003) approach of dialogical triads between ego, alter, and an object could provide an understanding of scientific activity much more focused on the relational aspect of scientific activity. This, for instance, could complement the present approach by elaborating in further detail about how scientists engage in dialogical relation with fellow scientists. Similarly, as the work of Osbeck and her collaborators (2011) showed, activity theory could provide more detail about the everyday practices of science, rather the meaning constructions created about it. In a different way, a narrative approach like discursive psychology could offer a systematic way to approach the cases analyzed, thus providing a complementary development and biographical perspective that has been mostly absent from this work. Therefore, all these approaches could certainly create novel, complementary insights about the personal dimension of scientific activity.

Finally, I conclude this thesis with potential, future directions for the ideas presented here as a whole—since Chapter 3 to 7 included future directions of their own. Regarding the theoretical angle of this dissertation, I am certain that the cultural psychology of science proposed requires much more refinement. One point in particular is especially pressing: elaborating in further detail whether, and how, innovative scientific ideas, i.e. ideas that depart from the established consensus in a scientific community, are driven by personal interests and motivations. This aspect was partially hinted in Chapter 4, but it could represent a central direction to be explored, given the major relevance that innovation has for science at large. As the flipside of this, the process by which scientists grew resistant to novel ideas could also be included into the cultural psychological approach elaborated. These resistances have been previously explored (e.g., Barber, 1961) but not much work has been done from a psychological perspective since. In relation to methodological advances, as noted in the previous paragraph, I think that novel data production and data analysis techniques could come from alternative psychological approaches to this topic.

However, the exact directions in which this cultural psychological approach to economists in Chile should go in the future remains as an open question. Question that I prefer to ask to the reader instead of answer it. I am certain that the reader who became interested in this thesis will be avid to discuss how to further advance an understanding of science that acknowledges the full—but neglected—implications of a very simple principle: science is made by human beings.

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SUMMARY

The present thesis is an enquiry about two distinct but complementary issues: the personal dimension of scientific activity, and the influential role that economists have had during the last decades in Chile. Regarding the former, this work complements existing philosophical, social, and psychological studies of science with a cultural psychology perspective. This perspective aims to be sensitive to the personal nature of the scientific activity but also to the cultural conditions in which scientific knowledge is constructed, without subsuming any of these dimensions into the other. At the same time, this work offers a novel perspective on the notorious role that economists have had in contemporary Chilean society, a topic that has been mostly addressed as exclusively social and institutional. By focusing on economists' experiences and views, this thesis shows that, while inserted in a particular historical background and a local scientific community, economists' work is also driven by personal commitments and social interests. Far from an effort to undermine the work of economists, this thesis aims to provide a more grounded, human view of it.

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